ENGINEERING NEWS-RECORD

fabricated spans sped installation of a 2,228-ft. railroad crossing of the Rhine at Mainz.

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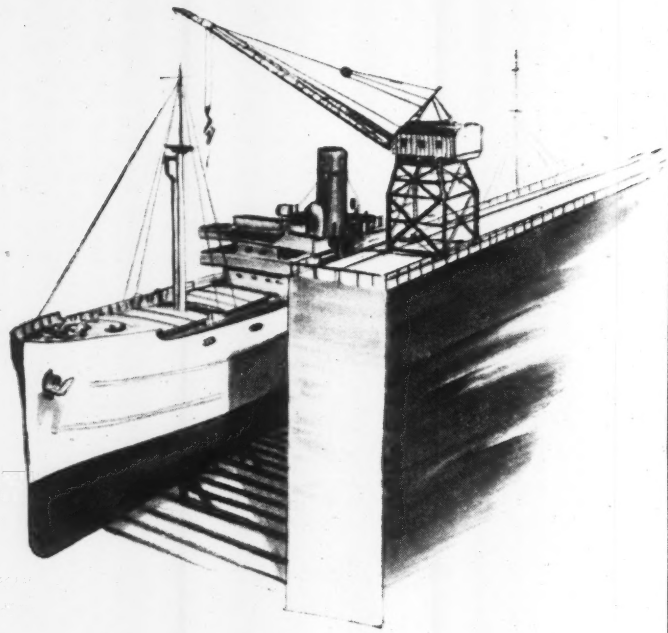
The GAGE *that* GUARDS LIVES *and equipment*



By J. P. Smith, Industrial Engineering Division, General Electric Company

On guard against crippling accidents at many drydocks is a tiny gage no larger than half the size of a cigarette package. This gage protects one of the busiest pieces of equipment on the docks—the revolving-boom-type crane.

EVERY craneman knows the difficulty of determining the weight he is to handle, and the radius at which he can swing the boom. If he is overcautious, he hesitates to handle loads that the crane can safely manage, and thereby slows the work—in this case the servicing of ships. If he becomes overzealous and picks up more than the crane can safely handle, he runs the risk of overturning the crane, ruining material, and losing lives.

The crane-stability gage enters the picture

This gage (components shown in picture) has removed the necessity for guesswork in crane operation. Now, by glancing at an indicating instrument (A) the operator can determine whether he is "safe," or getting "out of bounds." It is possible even to interlock the crane-stability gage with the electric controls of the crane in such a way that the operator will automatically be prevented from lowering the boom or hoisting the load if the gage indicates an overload.

The load causes stretch of one of the crane's structural members to which the magnetic strain gage (B) is attached. This stretch is measured accurately by the gage by the changing of the gage's .005-inch air gap, which in turn causes movement of a pointer over the five-inch scale of the instrument near the operator.

The boom-angle compensator (C), which measures the boom angle, constantly corrects the reading as the radius changes. Thus the operator knows, at any radius, when he is handling his maximum safe load.

What the crane-stability gage does

1. Gives the operator a continuous, accurate indication of crane stability at all times.

2. Prevents unsafe operation by giving an alarm automatically when the load limit is reached. Also, the gage can often be interlocked with the crane controls.

3. Measures crane stability *whether the load is stationary or in motion.*

★

In thus eliminating one of the hazards of crane operation, G-E has enabled workers in the heavy construction industry to obtain maximum output from expensive equipment, with less danger to life and material. Whenever you have an electrical problem, call on G-E engineers. They will be glad to work with you. ***General Electric Company, Schenectady 5, N. Y.***

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The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • MAY 24, 1945 • VOLUME 134 • NUMBER 21

Control over construction to be relaxed soon

Permissible ceilings on many types of building to be increased, and other types of construction added to those that can go ahead without WPB approval

As a first major step toward removal of the controls on construction, the War Production Board this week was completing plans for moderate relaxation of Order L-41, which is the chief control on construction. Although details of the relaxations are as yet unavailable, enough is known to indicate that the action by the WPB will permit a moderate increase in civilian construction in the next few months.

Higher limits for buildings

Two major changes of L-41 are planned. The first will consist of raising the permissible ceilings over the annual cost of construction jobs allowed to go ahead without getting WPB permission. Details as to this change are not complete, but they are expected to be about as follows: The dollar limit on repair or construction of one-family homes will be increased from $200 to $1,000; the exemption of construction or enlargement of commercial buildings may be increased to $5,000 yearly; the annual exemption for industrial construction will be set at $25,000, and the limitation that no more than $200 of the $1,000 ceiling set for repair of farm buildings probably will be changed to permit all of the money to be spent on repair of the home, if this is desired. Other construction ceilings expected to go into effect include: $5,000 for conversion, enlargement or construction of a hotel, apartment building or residence for six or more families; $5,000 for construction of an office building, bank, store, laundry, garage, restaurant, warehouse or other retail or wholesale service establishment; $5,000 for a church, hospital, school, college, USO club, public playground, or publicly owned buildings used for public purposes; and $5,000 for a bridge, overpass, underpass tunnel, dock, airport, bus terminal, or truck terminal operated by a common carrier.

The second major change in L-41 will consist of adding to the list of work that is exempt from the necessity of obtaining WPB authorization regardless of the construction cost. Several major types of work will be added to this list and extensive work requiring no critical materials will be allowed to go ahead. For example, the relaxation is expected to permit a large amount of earthwork on highway and airport construction to be started during the summer months, provided that the permanent installation of critical building supplies is eliminated or is kept to an unimportant minimum.

Details as to what other construction is to be added to this list should be available from the Board within the next few days.

The WPB points out that much reconversion work can go ahead under Directive 5 to Order L-41, which was issued late in April. This directive permits five general types of reconversion construction to proceed. For details of the operations permitted under this plan see *ENR* May 3, vol. p. 607.

Still more benefits are expected to result from the recent revocation of numerous limitation, conservation orders, and other L, M, P, E and U orders. More than 50 orders pertaining

(*Continued on next page*)

Engineers set prefabricated units in Rhine bridge

Caesar's claim to a Rhine bridge building record of ten days continues to take a beating as our Army Engineer plans for erecting the railroad crossings in big prefabricated units with huge concentrations of large capacity equipmemnt (ENR May 3, 1945, vol. p. 616) continues to unfold. The first bridge was completed in 10 days and 5 hours at Wesel by the 1056th Port Construction and Repair Group; the second in 9 days 22 hours at Mainz by the 347th Engineer General Service Regiment; and the third in 6 days 15 hours at Duisburg by the 332nd Engineer General Service Regiment, all a part of the Advance Section, Communications Zone organization. The first two bridges are about 2,200 ft. long, the last 2,800 ft.

The above picture shows a 25-ton floating stiffleg derrick setting a complete 75-ft. meter-beam span in the bridge at Mainz in the Third Army sector. There are 28 such spans, and one 90-ft. span in the bridge. Eighteen of the 30 piers are founded on hollow steel piles captured from the Germans.

directly or indirectly to construction have been removed already, such as L-77 pertaining to metal windows, L-187 dealing with cast iron boilers, and L-22 controlling the use of furnaces.

In addition, the Controlled Materials Plan may be "open ended" in the next few weeks, the WPB reports. This change would permit the delivery without CMP allotments of steel, copper, and aluminum supplies, where delivery can be made without interference with authorized CMP orders.

The total effect of all these relaxations and changes is expected to be considerable in the next few months. The construction picture is expected to improve still more later in the year as still other controls are lifted. But the picture should not be considered too encouraging for some types of work, because lumber supplies are expected to continue to be tight for several months, as explained in detail in *ENR* April 26, vol. p. 595.

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Lilienthal appointment confirmed by Senate

With only two dissenting votes, the Senate Monday confirmed by voice vote the appointment of David E. Lilienthal as a member of the board of the Tennessee Valley Authority for another 9-yr. term.

Increase in construction capacity urged by contractors' association

President Dick points to need for stepping up the industry's ability to meet postwar demands—Producers Council proposes apprentice training for mechanics in the building field

The capacity of the construction industry to produce at the high rate required to meet postwar demands must be stepped up as much as possible without interfering with the war effort, according to H. A. Dick, president of the Associated General Contractors of America, if the industry is to be in a position to provide its full share of employment opportunities after Japan capitulates. "This will require the completion of plans, for both private and public construction, to the contract-letting stage as rapidly as possible, and the replenishment of the stocks of construction materials, particularly general building equipment carried normally by building supply dealers."

Now operating at low level

Pointing out that construction alone of all major industries has been pressed to the wall in recent months, and is now operating at a rate of about $4,000,000,000 a year, Mr. Dick contended that every effort should be made to get the construction industry back to where it will be in a position to make its fullest contribution to the national economic and general welfare.

"Manufacturing concerns of various kinds are being given special privileges to enable them to secure materials and equipment for reviving their civilian activities. But construction is still being held down, while the industries that were favored in the war programs are being favored in preparing for the conversion period."

"Construction uses primarily steel, masonry products and lumber. Masonry products in general offer no difficulty. According to the Bureau of the Census and the Bureau of Mines, cement and brick kilns are operating far below their prewar capacity. It is also reported that the steel industry will soon have more steel available for civilian use than the average quantities consumed before the war. The only material which continues to be scarce is lumber, the production of which must be increased as rapidly as possible."

Unless the construction industry ready to resume near capacity operations soon after the end of the war with Japan, Mr. Dick said many construction workers released from war production and from military service will have to seek jobs in other industries.

Skilled mechanics lacking

The possibility that there will be shortage of skilled construction mechanics after the war is seen by James W. Follin, managing director of the Producers Council. "Except for the men who have acquired skills useful in the building trades as members of the armed services, relatively few apprentices have entered the field during the last five years. Moreover, in some lines, the number of craftsmen leaving the building trades during the last 5 years because of death or retirement has been greater than the number of new apprentices. The low rate of construction during the depression intensified this trend.

"If the volume of construction, including repairs and maintenance, is to attain a record-breaking volume of $ billion annually on the average, during the five-year period starting twelve months after the end of the war, about 8,000,000 workers, both on-site and off-site, will be required in the construction industry. This is approximately percent greater employment than in 1940. However, not all of the additional workers require special skills.

"If vocational training programs are started without delay in the various states, for the benefit of returning service men and other available workers, it should be possible to train an adequate number of new workers to supply the increasing construction demands."

"While there unquestionably will be an ample total supply of labor for the construction industry, the number of skilled craftsmen needed to permit quality construction will be inadequate in certain lines until thousands of newcomers have received the necessary training and experience," Mr. Follin said.

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William N. Carey named secretary of A.S.C.E. to succeed G. T. Seabury

Former St. Paul consultant now on active military duty with the Federal Works Agency will take over new duties on June 1.

William N. Carey, former consulting gineer of St. Paul, Minn., has been med secretary of the American So- ty of Civil Engineers to succeed orge T. Seabury, who last January ked the Board of Direction to permit to retire as soon as a successor ld be found. Col. Carey is now ctive duty serving as chief engineer the Federal Works Agency.

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Mr. Seabury retained

At the time that it elected Colonel rey to succeed Mr. Seabury, the ard named Mr. Seabury to be as- tant to the president, a new position t was created to make it possible for society to avail itself of Mr. Sea- y's experience in expanding the so- ty's usefulness to its members.

The new secretary is a mid-westerner d is well known in the public-works ld. He was born in St. Paul, Minn., d most of his professional life has ntered about the Twin Cities. His ly engineering education was ob- ned at the University of Minnesota llowed by four years of railroad loca- n and construction work in the West. returned to St. Paul to become an gineer with field and office duties in U. S. Engineer Department.

Early in 1917 Mr. Carey was com- ssioned captain, Corps of Engineers, d was later promoted to the grade of jor, in which grade he was honorably charged in 1919. In 1923 Mr. Carey cepted a commission as major in the ficers Reserve and maintained a re- ve status until April 1941 when he s ordered back into active service h the rank of colonel.

In World War I.

During World War I, Colonel Carey, n a captain, was first assigned as timental adjutant, 313th Engineers, h Div. Subsequently he was pro- ted to the grade of major and given mmand of the 1st Battalion of that iment. He served with his regiment the French front and, when his di- ion was relieved, was transferred to Hq. 7th Army Corps as assistant corps engineer. In that capacity he partici- pated in the Meuse-Argonne Offensive and in the Army of Occupation in Ger- many where for some months he acted as corps engineer.

During World War II, Colonel Carey served for a year in the Jacksonville, Florida, U. S. Engineer District, in charge of design of army airdromes and

William N. Carey

camps. In February, 1942, he was trans- ferred to the Federal Works Agency at Washington and assigned as chief engi- neer of that agency under Major Gen- eral Philip B. Fleming. He has served in that capacity to the present.

In the interval between World War I and II, Mr. Carey was for the first three years a partner in a consulting engi- neering firm in St. Paul, leaving that work in 1923 to become assistant city engineer and later city engineer of St. Paul during an extensive civic improve- ment program until 1933. In 1933 he was named state engineer for the Public Works Administration and later super- vised for the government the design and construction of the $17,000,000 sewer- age and sewage treatment project of the Minneapolis-St. Paul Sanitary District. Upon completion of that work in 1938 Mr. Carey opened an office as a con- sultant in St. Paul and was engaged principally on consulting engineering boards, arbitration and court matters. He carried on that business until called back to army duty in 1941.

Mr. Carey has been a member of the A.S.C.E. since 1916. He has served and now is serving on several society com- mittees, is the society representative on the Highway Research Board, was chairman of the executive committee of the Highway Division, and served as director from District 7 from 1941 through 1943.

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The Senate last week passed with minor changes a 23.6 billion dollar ap- propriation bill for the Navy Depart- ment for the fiscal year 1946. The bill (H.R. 2907) which was approved late in April by the House (*ENR* April 26, 1945, vol. p. 606), contains a sum of 1¼ billion dollars for new construction work. Of this amount, $786,000,000 is to be used for advance base construction, and $228,000,000 for construction of yards, docks and camp facilities in the continental U. S.

Secretary of the Navy Forrestal has asked that $1,500,000 of the money be earmarked for the construction of a new fieldhouse at the Naval Academy at Annapolis. Other work to be done in this country has not been determined.

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Oakland, Calif., votes for public improvements

Voters of Oakland Calif., in approv- ing $15,754,000 in bond issues May 8, included $5,311,000 for improvements and maintenance work on what has been called an "inadequate and sorely antiquated" storm and sanitary sewer system.

Floods in many areas of Oakland last winter because of inadequate storm drainage and the development of new residential areas in the city, center of some of the largest San Francisco Bay area war industries, were arguments advanced in favor of the sewer bonds.

Street improvements costing $4,950,- 000 to eliminate traffic bottlenecks and to provide new outlets from congested downtown areas were approved for con- struction when men and materials are available.

Other bond issues voted include $2,707,000 for a new Hall of Justice building, $1,763,000 for a new main library and four new branches, and $1,023,000 for swimming pools and other recreational facilities.

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Ninth Army Bridged Albert Canal With Spectacular Bailey

Waldo G. Bowman
Editor, Engineering News-Record
(From the European Theater of Operation)

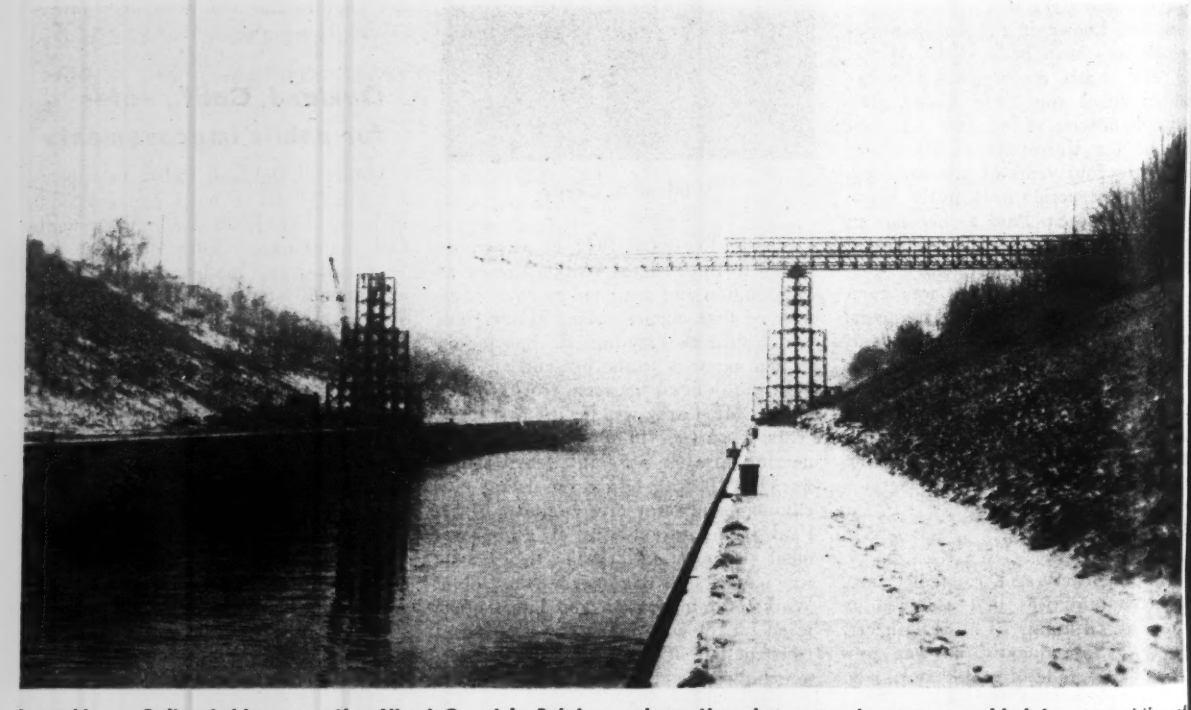
A Bailey bridge installation of a type contemplated in the instruction books but seldom if ever built enabled units of the Ninth U. S. Army to cross the Albert Canal in Belgium at a point where it ran through a deep, wide cut. The most unusual feature of the bridge was the use of 5x10-ft. Bailey truss panels to form the 52-ft. high piers as well as the superstructure, but it was also notable for the span lengths involved, 151-152-121 ft.

The builders were the 3053rd Combat Battalion attached to the Ninth Army, previously inexperienced in this type of work. Starting operations on Dec. 29, the battalion completed the bridge in 24 hrs. after 16,970 man-hours of daytime work and 6,120 man-hours of night work. Both Brig. Gen. R. U. Nicholas, Ninth Army engineer, and Col. David McCoach III, deputy Ninth Army engineer, praised the job as one of the best tactical bridging operations in their sector.

As shown in the accompanying illustrations, the bridge crosses the Albert Canal about 75 ft. above the water level at a point where the 122-ft wide channel is bordered on the west side by a 33-ft. wide road and on the east side by a 10-ft. towpath. Bank slopes of 2:1 bring the overall width between the top of the slopes to over 400 ft. The construction plan fitted into this topography was to erect the west pier with a crawler crane, the east pier with the aid of a cableway, since there was no room on the bank for a crane to operate, and for the span to be assembled at the top of the east bank and launched from there.

The towers consisted of two legs, each of triple truss construction, 30 ft. or six panels wide at the bottom, and 10 ft. or two panels wide at the top. Each pier contained 45 tons of Bailey truss panels. The piers were set on foundations of timber cribbing 2 ft. 8 in. high on the east bank and 4 ft. 8 in. high on the west bank.

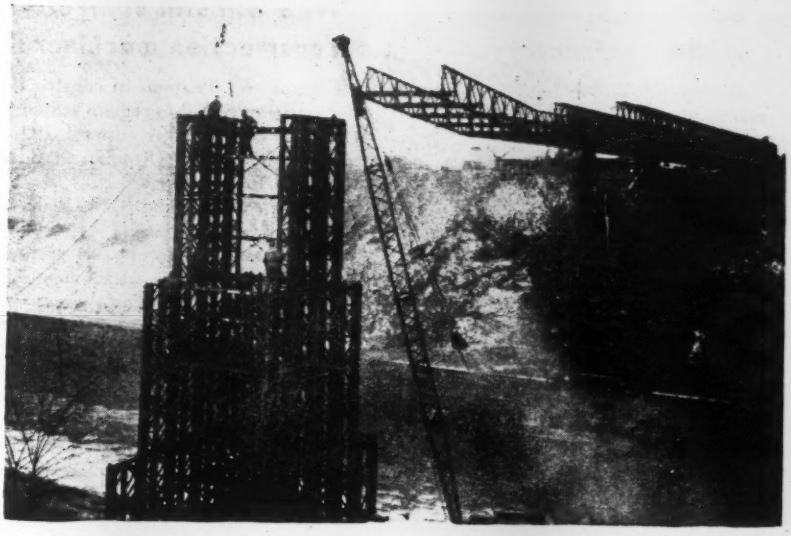
In erecting the west pier a 20-ton crawler crane with a 40-ft. boom placed the first three stories, after which a 16-ft. extension was added to the boom for erection of the top two stories. Cableway erection of the east pier proceeded in a conventional manner until some operational difficulties occurred. These were solved by taking advan-



Launching a Bailey bridge over the Albert Canal in Belgium, where the pier supports were provided by assemblies of Bailey truss panels. Spans are 151, 152 and 121 ft., while the piers are 52 ft. high. Note that the temporary launching nose is so long as to require double trussing in the last three bays.

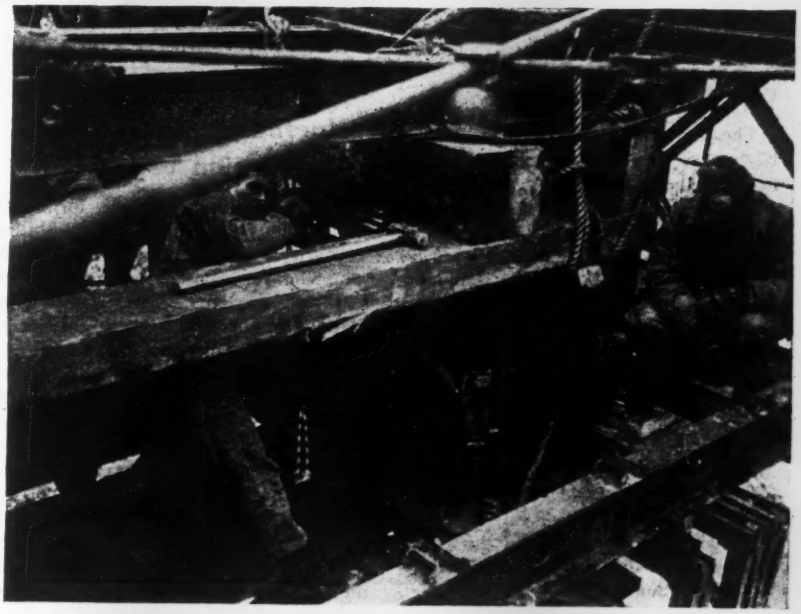
tage of the cantilevered superstructure. By the time trouble occurred, the superstructure had been assembled on the bank, together with the temporary launching nose. This assembly was pushed out over the edge of the bank until the assembly nose was over the east pier. Then, block and tackle were attached to the nose, and the top two stories of this pier were lifted into place. Launching of the superstructure then continued over the east pier and onto the west pier, as indicated in the accompanying illustrations.

After the span was across it was, of course, necessary to lower it onto its supports, and here, as shown in one of the illustrations, the jacking operations had to be carried on in unusually close quarters.



Above: Crane tops out 52-ft. tower of Bailey truss panels just as the launching nose of the bridge arrives.

Left: Motive power for launching the high Bailey bridge over the Albert Canal was the familiar bulldozer. It is to be noted that the span is of the 3 x 2 type, that is, three truss panels wide and two tiers deep.



ight: Lowering the Bailey span onto he Bailey piers proved a difficult operation because of the cramped quarters. hese close tolerances also placed a remium on accuracy in horizontal nd vertical alignment of towers.

Burton F. Miller heads ARBA contractors

Burton F. Miller has been named managing director of the Highway Contractors' Division of the American Road Builders' Association, according to an announcement by James J. Skelly, president of the association, and Charles W. Smith, president of the division. Mr. Miller has been with A.R.B.A. for nine years and since 1940 he has acted as an executive assistant to Charles M. Upham, engineer-director.

A graduate of law, Mr. Miller has been identified with the construction industry since 1933. Following a short period of private practice, he joined the Construction League of the United States, a federation of national associations in the construction field. Throughout this period, he was actively engaged in liaison work before the Congress and government departments.

In announcing Mr. Miller's appointment, Mr. Smith declared that "the volume of postwar construction will create many new problems, and it is essential that the contractors be prepared through foresight and organized effort to meet these new situations as they arise. The Highway Contractors' Division is planning a substantial expansion of activities in contemplation of postwar highways and airports."

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Not the first engineer to reach high rank

The statement that General Brehon B. Somervell is the first engineer officer to reach the full rank of general (*ENR* April 26, vol. p. 601) was made in error. No less a person than Douglas MacArthur was commissioned a second lieutenant in the Corps of Engineers when he was graduated from West Point in 1903 and served in the corps until the outbreak of World War I. Gen. MacArthur was the first engineer officer to be chief-of-staff.

Going back to Civil War days, some hold that Robert E. Lee and George B. McClellan should be classed as engineer officers, having received their basic training in the Corps of Engineers.

For continuous service in the Corps of Engineers, the laurels apparently go to General Somervell.

WPB will still control construction machinery

Control over 19 items of construction machinery expected to remain scarce for a while is continued by Order L-192, as amended by the War Production Board May 17. It substitutes List I for the former schedules A and B, the items being as follows:

Angledozers, bulldozers and modifications thereof; cranes, attachments for tractor mounting, crushing plants, portable type; ditchers, ladder and wheel types; distributors, bituminous; finishers, paving, bituminous; leaders, portable bucket (other than drag, flight or scraper type coal conveyors); plants, asphalt, including travel mix type; power control units, attachments for tractor mounting (both cable and hydraulic); pumps (portable engine or eletric-motor-driven pumping units, mounted on skids, with or without handles, or trailer mounted); self-priming centrifugal pumps, horizontal or vertical triplex piston road pumps, ordinarily used for contractor's purposes or by contractors for dewatering and supply; rollers, road, portable, tandem and three-wheeled types; scrapers, carrying and hauling, self-propelled; shovels, attachments for tractor mounting; and winches, attachments for tractor mounting.

No item on the following List 2 specific WPB authorization is required for the sale of the remainder of monthly output above military needs.

Cranes, crawler and rubber-tired mounted power and modifications thereof, except freight handling lift trucks; draglines, walking type (other types—see Cranes); graders, self-propelled, earth moving type; shovels, crawler and rubber-tired mounted power, and tractors, tracklaying type.

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Northwest development association organized

An organization reportedly formed to defeat the proposed Columbia Valley Authority, the Pacific Northwest Development Association, composed of representatives from Oregon, Washington, Idaho, Montana and Wyoming, recently outlined its policies in Portland.

A program for effective partnership of local, state and federal agencies, rather than policy making by a federal authority, for development of power, irrigation, flood control, navigation and other resources was advocated.

Support was pledged postwar projects calling for expenditure of over $250,000,000 within the jurisdiction of the Portland District Army Engineers.

Inter-American Highway work needs $25,000,000

A sum of $25,000,000 for continuing construction of the Inter-American Highway in Central America will become available if a bill (H. R. 3127) introduced last week in Congress is approved. It is proposed to amend the act approved Dec. 26, 1941, so that the authorization of U. S. aid for highway work in the six republics is increased from $20,000,000 to $45,000,000. The money would be spent under supervision of the Public Roads Administration.

The act referred to requires that in no republic shall the expenditure of the U. S. government exceed two-thirds of the total expenses incurred in the country. The bill up for passage would permit $17,500,000 of the appropriation to be expended without regard to these matching provisions.

Much work remains to be done to complete the road from the Mexican to Guatemalan border to the Canal Zone.

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Aid for rural roads in new Senate bill

Introduced in the Senate last week was a bill (S. 1022) supplementing the Federal-aid Road Act by authorizing appropriation of $1,125,000,000, for postwar construction of rural local roads. The money would be made available at the rate of $375,000,000 a year for three years immediately following the termination of the war. The bill also provides for the creation of a new administration in the Federal Works Agency to be known as the Rural Local Roads Administration and for appointment of a commissioner by the President. Also included in the bill is provision for immediate preparation of plans and acquisition of rights-of-way.

The money could be spent to meet as much as 75 percent of the cost of a given project. The money allocated to the various states would be in accordance with the Federal Highway Act of 1921. The apportionment among the counties and political subdivisions of a state would be on the following basis: 50 percent in the ratio that the mileage of roads used for rural mail delivery, star routes, or school bus service in each subdivision bears to the total mileage of such roads in the state; 30 percent in the ratio which the population of each county or other local political subdivision bears to the total population of the state; and 20 percent in the ratio which the area of each county or other local political subdivision bears to the total area of the state.

N. E. Water Works Ass'n. discusses electronics

New developments in electronic strumentation and chlorine dioxide eatment of water supplies were the o subjects that occupied the center of tention at the May meeting of the New gland Water Works Association held Boston, Mass., last week.

In presenting the subject of electronic strumentation, D. M. Neilsen, of the ctronic division, Foxboro Co., not only d of present applications of electronic struments in the form of devices for ating buried pipes and for measur- pH, liquid levels and turbidity, but nt on to outline the dreams of elec- nic and instrument engineers for the re distant future. In this latter class, . Neilsen mentioned the use of elec- nics to develop supersonic waves 0,000 or more cycles per second) that uld be used to promote flocculation, l bacteria and meter hydraulic flow main line service.

. A. McCarthy, of the Lawrence Ex- riment Station, Mass. Dept. of Public alth, discussed chlorine dioxide treat- nt of water supplies for taste and odor moval. From his experimental work d observation of the method as used the Chicopee, Mass., water treatment nt Mr. McCarthy drew the following nclusions:

(1) Satisfactory removal of tastes d odors can be accomplished by treat- nt with chlorine dioxide, but each pply so treated probably will require ividual study. Optimum dosages. metimes extremely high, must be ed.

(2) Chlorine dioxide treatment has le effect on color unless very large sages are employed.

(3) Disinfection of the water must separated from odor treatment, and nerally should be completed before plication of the dioxide. If done erwise, very high residuals must be ried.

(4) Waters treated with dioxide will ry a high chlorine residual without e problems, and the chlorine is freer act on bacteria.

Mr. McCarthy also concluded that rating cost of the dioxide treatment, the present, probably will be some- t higher than that of superchlorina- and somewhat lower than that of vated carbon.

Other papers presented included on pipe flow computations using the liams & Hazen's formula, by Prof. rge E. Russell of the Massachusetts itute of Technology, and another on tary use of public water supplies, Lt. Col. Robert N. Clark, Sn.C., t Service Command, U. S. Army.

F. W. A. photo

The Public Works Construction Advisory Committee

The members of the Public Works Construction Advisory Committee announced by Maj. Gen. Philip B. Fleming, Federal Works Administrator, represent 12 national organizations engaged in or responsible for the planning, design, construction or operation of public works, and will advise General Fleming on postwar public works needs.

In the picture members of the committee, from left to right, are: Seated, F. Stuart Fitzpatrick, U. S. Chamber of Commerce, secretary; E. Lawrence Chandler, American Society of Civil Engineers, chairman, and Col. William N. Carey, chief engineer of the Federal Works Agency, who soon will become secretary of the American Society of Civil Engineers. Col. Carey will act as contact between the committee and General Fleming. Standing, Earl Mallery, American Municipal Association; Maj. Edmund R. Purves, American Institute of Architects; S. Logan Kerr, American Society of Mechanical Engineers; H. E. Foreman, Associated General Contractors of America; Frederick Bass, American Public Works Association; J. W. Follin, Producers' Council, Inc.; B. F. Crihfield, alternate for Frank Bain, Council of State Governments; and R. J. Gray, Building and Construction Trades Department, American Federation of Labor.

Two other committee members not shown are: Paul Betters, U. S. Conference of Mayors, and Hal H. Hale, American Association of State Highway Officials.

Civic center planned for Portland, Ore.

Voters of Portland, Ore., on June 22 will pass on a $2,000,000 bond issue and a 2-mill levy for the next five years, proceeds to be devoted to postwar establishment of a civic center area comprising 23 blocks in the downtown section of the city. Of this amount, $1,000,000 would be earmarked for construction of city buildings, the remainder for purchase of property.

The plan embraces an area extending for seven blocks along the waterfront and would require purchase of 19 blocks now in private hands. In the area are two plaza blocks and the city hall and the Multnomah County court house. Construction of city, county, state and federal buildings would be concentrated in the district.

The plan represents a compromise adopted at a meeting of city officials, the city planning commission, the state postwar development committee and property owners. The city planning commission sought establishment of a 32-block area, while property owners opposed the project because 300 business firms there now do a $50,000,000 annual business with a $10,000,000 payroll.

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Ontario to complete Lake Superior highway

The Department of Highways, Ontario, has plans prepared for the completion of the highway along the north shore of Lake Superior. It will be 243 miles in length and on account of the rugged nature of the terrain, it is said that it will cost over $50,000,000.

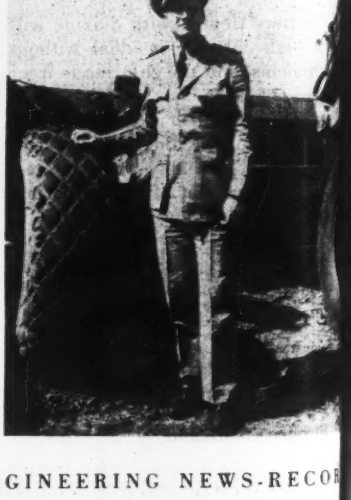
MEN AT WORK

At the recent meeting of the Associated General Contractors of Massachusetts, Inc., COL. HOMER B. PETTIT and BRIG. GEN. J. A. O'CONNOR, head of the Boston district and New England division, U. S. Engineers, were guests of the above organization, and addressed it informally on experiences in this country and overseas during the present war. PRESIDENT WILLIAM F. WHITE, recently elected head of the Association, is at right.

ROBERT HAYDEN, below, recently awarded the Meritorious Civilian Service Emblem by Vice-Admiral Ben Moreell, Chief of the Bureau of Yards and Docks, for outstanding service rendered in connection with the building, heavy construction and dredging for naval air bases in the Pacific since 1940. Mr. Hayden was associated with the Turner Construction Co., for many years.

ENSIGN GEORGE G. BETHUNE, CEC, U.S. Navy, below, in charge of surplus equipment at the Navy Equipment Repair Depot, McAlester, Okla., where he was found standing in front of one of the big scrapers being offered at a recent surplus sale. On April 1 he was transferred to Washington, D. C., on the staff of Vice-Admiral Ben Moreell, Chief of the Navy Bureau of Yards and Docks.

It was a cold day at Le Havre when these commanding officers of the three Engineer units engaged in rebuilding the port facilities met on one of the floating piers of Seabee pontoon units in the harbor. From left to right they are LT. COL. ELMER H. OECHSLE, of the 1055th Port Construction and Repair Group, formerly engineer for the Widmer Engineering Co., St. Louis; COL. FRANK F. BELL, of the 373rd Engineer General Service Regiment, in peacetime a partner in the Uvalde Construction Co., Dallas, Texas; and LT. COL. W. P. MOSS, of the 1061st Port Construction and Repair Group, who before the war operated a dredging and contracting company on Long Island.



News of the Engineering Schools

Dean A. A. Potter of the school of ngineering has been made acting presi- nt of Purdue University, Lafayette, nd., pending the selection of a succes- r to President E. C. Elliott, who is heduled for retirement June 30 to be- me president emeritus.

Dean Potter is a former president of e Society for the Promotion of Engi- ering Education and of the American ngineering Council. He has been head the engineering school at Purdue nce 1919, and latterly he has been hairman of the national advisory com- ittee on engineering science and man- ement war training. It is probable at this program will be abandoned ne 30 when present appropriations ex- re. Dean Potter points out that a total 1,800,000 men and women have been ovided instruction in the last four ars with a total appropriation of $61,- 0,000, making instructional costs only cents an hour per student.

Expansion of facilities at the Univer- y of Washington's School of Engi- ering at Seattle through construction a $4,500,000, five-building unit, which l include one of the most modern civil gineering laboratories in the country s been announced by the board of gents.

Construction of the first section of the il engineering building, to house the uctural research laboratory, is sched- d to begin in a few weeks. It will st $260,000, and contain four testing achines valued at nearly $500,000.

In addition to the civil engineering ilding, there will be an administration ilding and buildings for electrical, echanical, chemical, and general engi- ering.

Lorenz G. Straub, hydraulics professor d testing laboratory director of the iversity of Minnesota, Minneapolis, s been engaged by Houston, Tex., to nstruct a $20,000 test model for the 500,000 dam that will be built on the n Jacinto River. Houston will supply topographical information necessary. e test model will be used for studies currents of water in the damned river. formation obtained should prevent king costly mistakes in the actual nstruction of the dam. Houston ex- cts to be able to call for bids on the m in November.

Albert Haertlein, professor of civil en- eering at Harvard University, on May 8 became president of the Engineering Societies of New England which now have a membership of about 4,700.

On July 1, Roy M. Green will become dean of the college of engineering at the University of Nebraska, Lincoln. He will also be the director of the engineering experimental station. Prof. Green has been chairman of the civil engineering department and assistant dean. He is a Nebraska graduate of 1914.

At its annual meeting held recently in Bismarck, the North Dakota Society of Professional Engineers, honored Elwyn F. Chandler, dean-emeritus of the School of Engineering, University of North Dakota, for his outstanding accomplishments during 39 years association with the university. Dean Chandler was graduated from Ripon College in 1894 and received his master's degree three years later. He was the first North Dakota state engineer. In addition to his academic activities he served as hydraulic engineer for the U. S. Geological Survey for 27 years, concentrating chiefly on studies of the Red River.

The government of India will shortly set up an advisory council to make a country-wide survey of technial education, with particular reference to post-war needs. The council will consider a project for the establishment of a senior all-India polytechnic school on the lines of the Massachusetts Institute of Technology.

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Mass home construction planned by Kaiser

Formation of Kaiser Community Homes, an organization that will apply Henry J. Kaiser's mass construction techniques to building homes grouped in complete communities, was announced May 9 in San Francisco. Immediate construction of 10,000 dwellings on the Pacific Coast is planned.

Incorporated at $5,000,000, the organization is headed by Mr. Kaiser as chairman of the board and Fritz B. Burns, Los Angeles community home builder, as president.

Expected to be completed this year in the San Francisco Bay area, Los Angeles and Portland are the initial 10,000 homes, to be grouped on sites already acquired, with business, recreational and health centers included.

Introducing industrial methods into the field of home-building, individual communities will be composed of from 200 to 500 structures of similar basic design but of varying architecture. By employing "assembly line" techniques, the corporation expects to turn out two and three bedroom homes, complete with lot, modern conveniences and appliances to sell at from $4,000 to $5,000.

Principal construction materials will be steel studding, insulating material and stucco. Designs employing all structural materials from conventional wooden studdings to steel frame construction, and making use of glass, plastics, stainless steel, light metals and bonded woods, have been developed, it was disclosed, though regional conditions and availability of materials at the site will determine their use.

Expecting to expand the enterprise on a nation-wide basis, Mr. Kaiser said the organization would (1) acquire land and develop it for optimum home-site lay-outs; (2) obtain the necessary materials and manufactured components; (3) provide all designs; (4) establish and maintain rigid specifications and high standards of construction, and (5) market the homes to the public. It will build the homes it-elf and will also contract for their construction.

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Charles D. Marshall dies Pittsburgh steel leader

Charles Donnell Marshall, Sr., 77, former Pittsburgh steel leader, whose firm, the McClintic-Marshall Construction Co., built some of the most important structures in the United States, died at his home, Laurel Rocks Farm, Chester County, Pa., on May 16.

Born in Allegheny County, Pa., Mr. Marshall obtained a civil engineering degree at Lehigh University in 1888. Soon afterward, while chief engineer of the Shiffler Bridge Co., he became associated with his Lehigh classmate, the late Howard Hale McClintic, to found the McClintic-Marshall Construction Co., started with an original investment of $250,000 by the late Andrew W. Mellon. Eventually the enterprise developed into a $64,000,000 business, with steel plants at Pottstown, Lancaster, Carnegie and Leetsdale, Pa.; Chicago, Buffalo and Los Angeles. It merged with the Bethlehem Steel Co. in 1931.

Among the numerous structures for which steel was supplied by McClintic-Marshall are the Golden Gate Bridge, San Francisco; the gates to the Panama Canal; the George Washington Bridge, New York; and the RCA Building, New York.

Law passed to clear Ohio dock project

The Ohio Legislature has removed one of the last obstacles in the way of the $19 million coal and ore dock project that will be built jointly by the New York Central and the Baltimore and Ohio Railroads on the east Bay Shore near Toledo, Ohio. The passage of the Early bill, which authorizes two or more railroads jointly to construct terminals for rail and water shipments, followed hearings that brought out that, under the former Ohio law, railroads had a right to construct such a depot or dock project only within municipal limits.

The site of the proposed project, on Maumee Bay, is east of the present Presque Isle docks of the Chesapeake and Ohio Railroad, where approximately half of all the coal destined for upper Great Lakes ports each season is loaded into lake freighters. The property has been surveyed, borings made, and plans for the development are about completed, it is understood. Some officials expect that the new project will exceed the Chesapeake and Ohio facilities, largest at present on the Great Lakes. Originally planned by the Baltimore and Ohio a year ago, at a cost of $7,000,000, the dock project has become a joint venture because, desirous of eliminating the long haul up the Maumee River, handicapped by bridges, the New York Central joined the Baltimore and Ohio in the enterprise, and the project was expanded to cost an estimated $19 million.

Final approval of the project means dredging of another large, deep ship basin east of the present Chesapeake and Ohio docks in order that vessels coming in or leaving the bay channel can head into the new docks without fear of either river currents or bridges.

The present B. & O. docks are south of the Fassett St. bridge, so that on the long trip up the river lake cargo business is handicapped by several bridges. Although New York Central docks, south of Cherry St. bridge, are not as far up the Maumee River as the B. & O. docks vessels must pass four bridges to reach those facilities.

Postwar public works program for Virgin Islands

Maj. Gen. Philip B. Fleming, Federal Works Administrator, has assigned the administration of the postwar public works program in the Virgin Islands to the Bureau of Community Facilities, F.W.A., of which George H. Field is commissioner. Mr. Field has appointed Thomas G. Mooney, of the Bureau of Community Facilities, as district engineer for the islands.

The Independent Offices Appropriation Act makes immediately available $150,000 for the advance planning of Virgin Island postwar public works. Previous legislation allocated the sum of $10,000,000 to the Federal Works Administrator for the program. Of this amount, up to 5 percent might be used for making studies, plans and investigations and for drawing up necessary specifications. The $150,000 planning fund was appropriated under this authorization. The improvements in prospect include hospitals, sanitation facilities, water supply, roads, streets, public buildings and recreation facilities. The Public Buildings Administration, FWA, will supervise the planning and construction of buildings. The Public Roads Administration FWA, will supervise the planning and construction of highways. The Bureau of Community Facilities will be the general supervising and coordinating organization.

Mr. Mooney before joining the staff of the Federal Works Agency in 1942, was engaged in private enterprise in the fields of engineering and management.

BRIEF NEWS

The Santa Corp., an agency of the Peruvian government, has purchased from the British Peruvian Corporation the railway from Chimbote to Tablones. Considerable reduction in cost of transportation is anticipated. For details of this project see the article, "The Pittsburgh of Peru", in the *Engineering News-Record*, Sept. 21, 1944, vol. p. 360.

The 75-mile road between Brownsville, Tex., and San Fernando, Mexico, will be paved in the near future, the Mexican authorities have assured the Houston, Tex. officials. This will give Houston a route to Mexico City 113 miles shorter than that it now uses by way of Laredo, Tex., and Monterrey, Mexico.

Authority to complete a survey for a $1,000,000, 2½-mile stretch of roads to connect the old Columbia River Highway with grading already completed on a portion of the new river-level route was given Oregon Highway Engineer R. H. Baldock by the State Highway Commission recently. Scheduled to be among the first government-aided projects for after the war, the spur is expected to be constructed before work is resumed on the river-level route, which was completed as far east as Cascade Locks before the war. The spur route will take off from the old highway east of Portland and join the new highway at the west end of the Columbia River gorge, by-passing Troutdale.

The War Production Board has approved the construction of a 50-ft. dam at Asheboro, N. C., to increase the city's water supply. The dam, to be located on Back Creek, will impound 1,250,000,000 gal. of water. It is expected to provide an additional 5 mgd. W. M. Piatt, Durham, N. C., consulting engineer, is supervising the project.

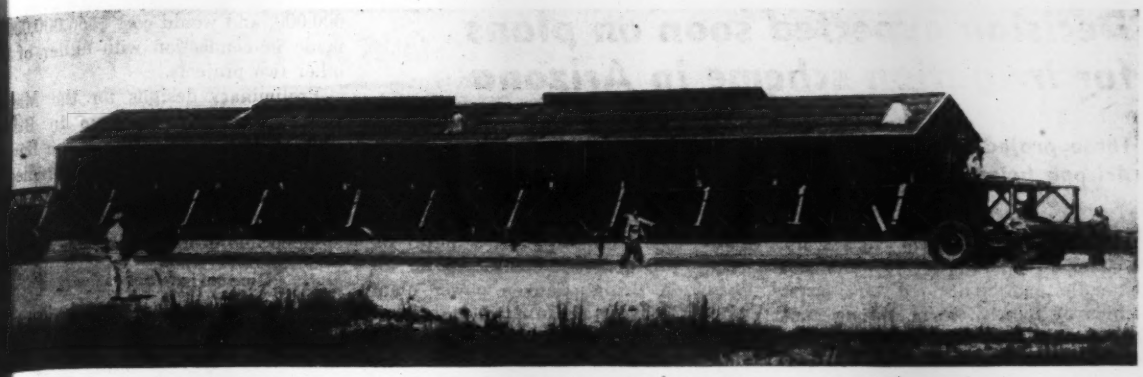
Construction of a half-mile long bridge over Irondequoit Bay on Lake Ontario near Rochester, N. Y., at an estimated cost of $1,500,000—with highway approaches—became a postwar project when Governor Thomas E. Dewey signed an enabling act for that purpose. Herbert L. Michael, deputy state engineer, said that while the bridge undoubtedly will span the bay at Inspiration Point no survey of ground conditions for the structure has yet been made, nor has the type of bridge been determined.

The Canadian government is being asked to build a canal across Chignecto Isthmus at the junction of Nova Scotia and New Brunswick, to connect the Bay of Fundy and Northumberland Strait. Started many years ago as a private venture, the project was abandoned because of financial difficulties. Its aim is to shorten the water distance between the U.S. Atlantic seaboard and St. Lawrence River ports.

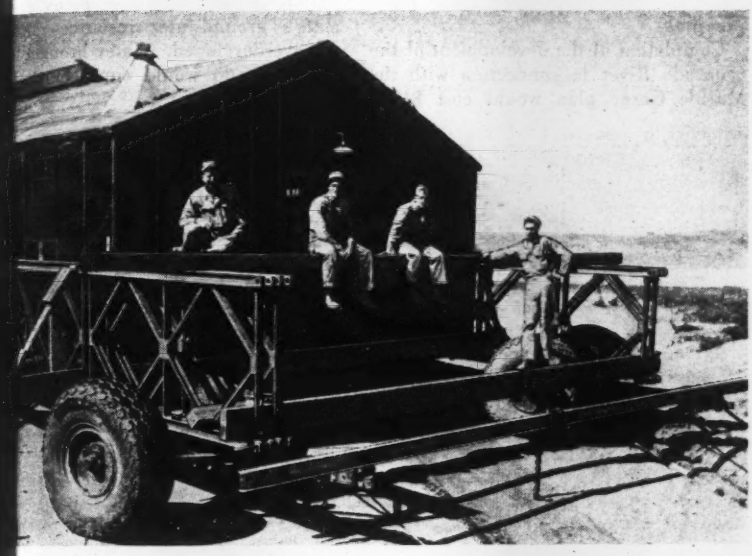
Recently the Brown Shipbuilding Co. formed by the construction firm of Brown & Root, at Houston, Tex., launched its 300th warship built since February, 1942. It was a 206-ft. LST for landing tanks and other mechanized equipment with invasion forces.

After doing all its own street paving work for more than a decade, Rochester, N. Y., is again contracting the paving of city streets. The first job to be let by a private contractor since 1933 will be a stone and concrete foundation for a section of Clifford Ave. Surfacing will be done by the city.

Robert J. Ross, Hartford, Conn., engineer, has made preliminary plans for a 3-story municipal parking plant estimated to cost several million dollars. The project is planned for postwar construction and would be built in Market Street east to the boulevard and between Temple and Talcott streets. A total of 2,500 cars could be parked in the proposed facility.



Bailey bridge trusses used as trailer bed to move house



Bailey bridge trusses have had wide use in the war zones, particularly in the replacement of destroyed highway bridges. But the ingenuity of our Engineers in finding other uses for these trusses is demonstrated in the accompanying pictures.

To move a long timber-frame one-story building, a U. S. Army Engineer crew recently used 120-ft. Bailey bridge trussses to construct a trailer bed. Along each side of the building two trusses were used, making four in all.

The trailer bed was supported on four sets of rubber-tired two-wheel dollies. The front dollies were pivoted, as shown in the illustration at left, and they were turned simultaneously by the channel in immediate foreground, which is joined to angle-bar extensions on the dolly chassis.

This description is based on an item in the Maintenance Engineer, *published by War Plans Division, OCE, U. S. Army.*

C.E.D. urges planning for postwar building

e Committee for Economic De-ment is now calling upon its community and county chairmen imulate planning for postwar con-tion programs in their respective unities. Acting jointly with the rican Society of Civil Engineers, D. urged that private construction rams be hastened to the blueprint so that building work may start on after final victory as materials manpower are available.

e engineers' group estimated that per planning and blue printing are now more than $15,000,000,000 of private and necessary public will be ready for bids in the first after peace. Such a program, it aid, would provide jobs for 9,000,-orkers.

asking its local units to stimulate planning C.E.D. took its fourth step to encourage high level pro-e employment after the war. Pre-y it had undertaken programs to stimulate the creation of jobs in commerce, industry and agriculture.

Maj. Gen. Philip B. Fleming, administrator of the Federal Works Agency in Washington, has indicated his approval of the C.E.D. plan to stimulate private construction.

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Canada to build 600 houses in Toronto, Ont.

Six hundred permanent houses are to be built in Toronto, Ont., by the federal government of Canada through Wartime Housing Ltd., government owned emergency housing agency.

These houses will be the first permanent type dwellings to be built by a federal agency of Canada for rental purposes. Because of lack of space within the city boundaries of Toronto proper, some of the houses will be erected in adjoining suburban municipalities. The city of Toronto must donate civic services, such as streets, sewers, etc., for the project at a cost which may amount to $250,000.

Big postwar program of roads for Oregon

A program providing for the expenditure of $33,613,000 during the first three years after the war was announced recently by the Oregon State Highway Commission. The federal government will pay 60 percent of the cost, the state the remainder. In addition to its portion of the $33,613,000, the federal government will spend $10,200,000 during the 3-year period on forest roads in the state.

Allocations made by the commission provide for the expenditure of $21,-413,000 on primary highways and 12,-202,000 on secondary highways and county roads. Of the total, $14,986,000 will be spent on Oregon's four transstate highways known as the Pacific, Oregon Coast, the Dalles-California and the Columbia River-Old Oregon Trail.

The commission's overall postwar program calls for a total expenditure of $36,000,000, leaving about $2,400,000 to be allocated when conditions for construction are more favorable.

Decision expected soon on plans for irrigation scheme in Arizona

Three projects for delivery of Colorado River water to central Arizona being studied by Bureau of Reclamation engineers

How and where Arizona can best use its share of Colorado River water is a matter that can be decided soon, in the opinion of John C. Page, former commissioner of the U. S. Bureau of Reclamation and now consulting engineer of the bureau, who recently conferred with Governor Sidney P. Osborn and Arizona state officials upon speeding selection of one of the three proposed routes for bringing Colorado River water to the central part of the state.

Three alternate routes

The three proposed routes, for the development of any one of which special federal legislation would be necessary, are as follows:

1. *Marble Gorge Route*—Water would be diverted at a high dam in Marble Gorge near the Utah line and would be carried through a tunnel of 3,000 cfs. capacity for a distance of 139 miles to a point high up in the Verde River valley. From there it would be run through a series of power plants before reaching the irrigated areas around Phoenix. Exclusive of the Colorado River work, this project would cost $487,000,000.

2. *Bridge Canyon Route*—This project calls for a dam somewhat higher than Boulder Dam in Bridge Canyon near the upper end of Lake Mead, a 72-mile tunnel to Sacramento Wash, a canal of 3,000 cfs. capacity 82 miles to the proposed Cunningham Reservoir, a regulating reservoir, and a canal of 4,000 cfs. capacity a distance of 180 miles to Granite Reef Dam on the Salt River. This project would cost $325,000,000 exclusive of the dam and power facilities on the Colorado.

3. *Parker Pumping Project*—Under this plan a pumping plant of 3,000 cfs. capacity would lift water from the lake behind Parker Dam a vertical distance of 1,040 ft. to deliver it to Cunningham Reservoir. That project, including the canal beyond Cunningham Reservoir would cost $134,000,000.

Available water

Under the Colorado River Compact, Arizona is entitled to use 2,800,000 acre-ft. of Colorado River water annually. Any one of these schemes would require about 2,300,000 acre-ft.

Power production studies are complete for the Bridge Canyon and Marble Gorge and for power sites on the latter route. Parker Dam is built. Its power production is contracted for already. A Bridge Canyon power plant would be necessary to drive the pumps on the Parker project, and would produce additional power to sell. The Davis Damsite, between Boulder and Parker, would not produce enough power for the proposed Parker route pumping.

Completion of the development of the Colorado River in connection with the Marble Gorge plan would cost $491,000,000, and would cost $566,000,000 made in connection with either of the other two projects.

Preliminary designs for the Marble Gorge Dam and the dam in Bridge Canyon have been made by the Bureau of Reclamation and are being studied in the bureau's hydraulic laboratory. Work on Davis Dam was begun but was stopped due to the war.

Control of groundwater

Mr. Page said that the Bureau of Reclamation would probably recommend that adequate control of ground water by the state of Arizona should be made a requirement of federal participation in any of these plans as the state's groundwater resources already are overdeveloped. Water brought from the Colorado would supplement these supplies.

Three projects to deliver Colorado River water to central Arizona are under consideration. The Marble Gorge Route involves a tunnel 139 miles long, exceeding the length of any tunnel built heretofore.

MEN AND JOBS

Maj. Fred S. Poorman, assistant chief of the engineering branch of the Military Construction Division, Office of the Chief of U. S. Army Engineers, has been awarded the Legion of Merit for devising and supervising development of a flexible gunnery trainer now used in the instruction of bomber gun crews. Major Poorman, who was graduated from Denison University in 1923, spent one year with the Pennsylvania R.R., one year as a highway contractor, and 14 years with the Pennsylvania State Highway Department. He also served as assistant chief engineer on construction of the 165-mi. Pennsylvania Turnpike. In the fall of 1940 Major Poorman became chief of roads and railroads section of the construction division, Quartermaster General's office. In December, 1942, he was commissioned in the Engineers. Since then he has been assistant chief of the Military Construction Division and in his present position.

Phil H. Kline has become plant engineer with the Hercules Powder Co., at the New River Ordnance Plant, Pulaski, Va. He was formerly with the Dravo Corp. at Wilmington, Del., and earlier had been with the Utah Construction Co., on Nantahala Dam in North Carolina, and with the Tennessee Valley Authority.

Abel Wolman, professor of sanitary engineering at The John Hopkins University, on May 16 announced his resignation from the Maryland State Planning Commission and the Maryland Commission on Postwar Reconstruction and Development effective June 1. He has been chairman of the former since its organization in 1943, and of the latter since 1943. Dr. Wolman serves on several commissions and committees sponsored by the Federal Government. He is a consultant to J. A. Krug, chairman of the War Production Board; chairman of the Sanitary Engineering Committee of the National Research Council; and consultant to the surgeon general of both the Army and Navy. He is also consultant to the city of Baltimore on public works administration.

Robert Shick, Bowling Green, Ohio, has been named assistant engineer for Division 1 of the Ohio Department of Highways, Lima. He has been with the department since 1934.

Lt. Col. Harry S. Bronson, former Ramsey County, Minn., engineer commander of Engineer base depots in England, France and Belgium, has returned home to recover from wounds received in Belgium. Colonel Bronson, who served overseas a year and four months in World War I, coming out as a 1st lieutenant of Engineers, entered World War II in April, 1941, and supervised the building of the Maumelle Ordnance plant at Little Rock, Ark., before going overseas.

Robert L. Caviness, district health engineer at Winston-Salem, N. C., for the last four years, has resigned to become senior sanitary engineer with the North Carolina State Board of Health, Raleigh.

The Texas Senate has confirmed the appointment of **E. C. Spence,** Big Spring, to a 2-year term on the State Board of Water Engineers, and of **J. S. Hudnall,** Tyler, for a 6-year term on the State Board for Registration of Professional Engineers.

Robert M. Hoisington, Wayne, Mich., assistant area supervisor for the Federal Public Housing Authority in Michigan, has been engaged as city manager for Ashtabula, Ohio.

S. J. Stewart, district road chief, Kalamazoo, Mich., retired recently, after 40 years of civil engineering practice. One hundred engineers honored him at a farewell dinner. Mr. Stewart has degrees from Columbia University and the University of Rochester, N. Y., and served with U. S. Engineers from 1918 to 1920. While supervisor of locks and dams at Syracuse, N. Y., he supervised the drafting of plans and designs for the Storm King Highway on the west shore of the Hudson River.

Ernest B. Gibbs, who prior to entering the Army in the fall of 1942 was an engineer with the N. C. State Highway and Public Works Commission at Durham, N. C., was promoted to second lieutenant from sergeant in India where he is a civil engineer with the United States Army Air Forces.

An advisory board to assist in the planning of super-highways in the Toledo, Ohio, area, has been authorized by the City Council. Known as the Greater Toledo Street and Highway Commission, its members are **Arnold Finch,** division engineer of the Ohio State Department of Highways, **Bernard Kesting,** county engineer; **Clayton Piper,** city engineer, and **Charles Hatch,** of the City Plan Commission.

J. Leo Hoak has resigned from the Hoak Construction Co., Des Moines, Ia., and has joined the Wheeler Lumber, Bridge & Supply Co. in the same city. He has also resigned as a director and treasurer of the Central Branch, Associated General Contractors. Mr. Hoak held the hauling and transportation contract for the Alaska section of the Alaska Highway.

Royal W. Thompson, Windsor, Conn., engineer of rights-of-way in the Connecticut Highway Department, has been appointed superintendent of streets for Hartford, succeeding **Leon F. Peck,** retired.

Arthur S. Tuttle has been named consulting engineer and chairman of the board of The Haller Companies, New York, which include The Haller Engineering Associates, The New England Inspection Bureau and the Haller Testing Laboratories. Mr. Tuttle will continue his practice as a consultant under his own name, the firm of Tuttle, Seelye, Place and Raymond, with which he has been associated on war work since 1941, having been dissolved. Since his retirement as consultant engineer to the Board of Estimate and Apportionment of the City of New York in 1933, after 31 years as its chief engineer and consultant, Mr. Tuttle has devoted much time to public service, having been state engineer in New York for the Federal Emergency Administration of Public Works and state director, 1933-37, also consulting engineer to the Work Projects Administration, 1937-41.

Scotland G. Highland, general manager of the Clarksburg, W. Va., water board, has been elected to full membership in the American Geophysical Union.

H. B. Hyche has been appointed surveyor for Jefferson County, Ala.

Ralph A. Bennitt has announced the opening of a consulting engineering office at 51 E. 42d St., New York, specializing in industrial building layouts, structural designs, construction, power and industrial investigations in Latin America. Associated with him is Joseph H. Stevens, industrial engineer at 1620 Chemical Bldg., St. Louis 1, Mo.

Friant-Kern canal work to be expedited

A War Production board promise that construction of the Friant-Kern Canal, 160-mi. long unit of California's Central Valley Project, will be expedited, following long delays caused by lack of material and manpower priorities, has been received by government officials in the San Joaquin Valley.

J. A. Krug, WPB chief, and Harry W. Bashore, Bureau of Reclamation commissioner, have agreed to reopen negotiations for construction of the project which will carry water from Friant Dam south nearly to Bakersfield in Kern County, it was reported.

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Aqueduct and sewerage service for Puerto Rico

Governor Rexford G. Tugwell has signed a bill passed by the Legislative Assembly of Puerto Rico creating the Aqueduct and Sewerage Service, with an appropriation of $2,500,000 for the construction of new waterworks systems, for maintenance and improvement of existing systems, and for operating expenses. The legislation also earmarks $1,000,000 to be invested in new sewerage systems throughout the island.

All the waterworks and sewerage systems of Puerto Rico are now placed under the jurisdiction of the new organization headed by Sergio Cuevas Bustamente, former Commissioner of the Interior. (The appropriations are set forth in the 6-year financial program of the government of Puerto Rico, but the whole 6-year program calls for $12,000,000 in appropriations to be passed by the Legislative Assembly to carry out the vast program of construction, maintenance, repair and operation of the aqueduct and sewerage services on the island.)

According to the program submitted by the Planning Board to the Legislature in February of this year, the following appropriations are set forth for future projects: New aqueducts during the fiscal year 1946-47, $2,600,000; 1947-48, $2,500,000; 1948-49, $2,000,000; 1949-50, $1,400,000; and 1950-51, $1,000,000. For the construction of new sewerage systems, the following are listed: $650,000 during the fiscal year 1946-47; $500,000 for 1947-48; $350,000 for 1948-49; $300,000 for 1949-50; and $200,000 for 1950-51.

Mr. Cuevas says that since the service took over operation of the San Juan waterworks early this year, the U. S. Health Service has been cooperating in improving conditions. It is expected that the Public Health Service will assist in obtaining priorities necessary to hasten completion of the new installations.

Meanwhile, said Mr. Cuevas, many physical improvements have been made in the present water supply system. These have materially increased pressure available to all water users in the San Juan area. Much of the pressure loss has been attributed to bad equipment in homes and other points where water is in use. It was estimated that leakages resulted in millions of gallons of water being lost in San Juan every day.

The U. S. Army supervised the San Juan waterworks improvement project, which cost more than $3,000,000.

JOBS OF THE WEEK

CARBON BLACK PLANT, Odessa, Tex.

Ford, Bacon & Davis, New York, N. Y., have been awarded a contract to design and construct a carbon black plant for United Carbon Co., Charleston, W. Va., at an estimated cost of $5,000,000.

HOUSING, Newark, N. J.

Newark Housing Authority, Newark, N. J., received the lowest bid for Boulevard Homes, from Rubin Construction Co., New York, N. Y., at $1,158,690. W. E. Lehman, Newark, is the architect. National Housing Authority will help finance.

WATER TUNNEL, San Diego, Calif.

Bureau of Yards & Docks, Navy Department, Washington, D. C., awarded a contract for the construction of an aqueduct tunnel to connect Metropolitan Water District conduit with San Vincente Dam in San Diego County, to W. E. Callahan Construction Co. and Gunther & Shirley Co., Los Angeles, at $878,536.

AMMUNITION MAGAZINE, Bangor, Wash.

Sound-Kiewit Construction Co., Seattle, Wash., has been awarded a contract for 70 additional ammunition magazines, with rail and highway facilities, by Bureau of Yards & Docks, Navy Department, Washington, D. C., at $2,733,556.

HOSPITAL, Tacoma, Wash.

Macdonald Building Co., Tacoma, has been awarded a contract to build 2 story, basement, reinforced concrete infirmary addition, 1 story, storehouse addition, 4 story and 2 story hospital buildings at Veterans Hospital by Veterans Administration, Washington, D. C., at $2,059,827.

APARTMENT, Akron, O.

Westgate Manor Co., New York, N. Y., awarded a contract to Psaty & Fuhrman, New York, N. Y., for 22 apartment buildings on 50-acre site at an estimated cost of $2,250,000. FHA is financing.

SMOKELESS POWDER MAGAZINES, Crane, Ind.

Maxon Construction Co., Dayton, O., will build smokeless powder magazines at Naval Ammunition Depot to cost $1,300,500. Bureau of Yards & Docks, Navy Department, Washington, D. C., awarded the contract.

PIER, Hunters Point, Calif.

Gerwick, Morrison, Knudson & Twaits, San Francisco, Calif., have been awarded a contract to construct electrical, mechanical and miscellaneous services for pier at U. S. Drydocks, by Bureau of Yards & Docks, Navy Department, Washington, D. C., at $1,146,254.

HOSPITAL, Fargo, N. D.

Veterans Administration, Washington, D. C., awarded a contract for the construction of additional buildings and facilities at Veterans Hospital to Hagstrom Construction Co., St. Paul, Minn., at $1,719,300.

WATER PIPE LINE, Ciudad Trujillo, Santo Domingo

Lock Joint Pipe Co., Ampere, N. J., has been awarded a contract to build 30-in. dia. concrete water pipe line from reservoir to city by Dominican Republic Ciudad Trujillo, at an estimated cost of $1,468,260.

INERT STORAGE BUILDINGS, Crane, Ind.

Johnson, Drake & Piper, Inc., New York, N. Y., has been awarded a contract for the construction of an inert storage building, fuse and detonation magazines at Naval Ammunition Depot by Bureau of Yards & Docks, Navy Department, Washington, D. C., at $1,355,000.

Note—Additional bidding and contract news on many projects large and small appear in the Construction News section beginning on page 16.

OBITUARY

Hugh T. Hazen, 76, retired chief engineer of the Atlantic region of Canadian National Railways, died in Brockville, Ont., May 6. Mr. Hazen retired in 1938 after serving the C.N.R. and its predecessors for 48 years. He was chief engineer of the Atlantic region, with headquarters in Moncton, N. B., from 1932 to 1938.

Howard G. Huntley, 46, past president of the Associated General Contractors and member of the San Jose, Calif., contracting firm of Piazza & Huntley, builders of some of the largest airports in the west, died May 12 in Woodside, Calif.

Lawrence P. Vogt, 66, a civil engineer for the Milwaukee Bridge Co., Milwaukee, Wis., died May 5.

Edmund A. Doyle, 64, consulting engineer for the Linde Air Products Co., a unit of Union Carbide and Carbon Corp., and former president of the American Welding Society, died May 4 in New York City. He joined Linde in 1922 as assistant general sales manager in charge of service. Four years later he became consulting engineer on process development, a post he held until his death.

Joseph Bickford, 60, former city engineer of Benicia, Calif., died May 9 in that city.

William Adams Baker, 46, an engineer employed for 15 years by the Virginia State Highway Department, died in Highland Springs April 26. He joined the Henrico County engineering department in 1939 and since 1941 he has been assistant county engineer of that county.

Springfield Baldwin, 71, civil and construction engineer, died in St. Louis, Mo., May 9.

George W. Forsyth, 64, senior supervisor in the city engineer's office at Seattle, Wash., died in that city May 9. He had been with the city 42 years.

Ross S. Peck, construction engineer, died May 14 at East Orange, N. J. Mr. Peck was associated with the United Engineers and Constructors, Inc., of Philadelphia, Pa., when he retired in 1940. He lived for many years at Narberth, Pa.

No wage rates changes on construction work

Present wage rates are to be continued on construction carried out as part of the reconversion program, the National War Labor Board revealed this week. The WLB statement followed a May 10 statement concerning appropriate wage adjustments in industrial plants converting from war production to the production of civilian goods. Not meant to be a variation from the wage stabilization program, the general plan might permit some increases but it was more apt to cause wage reductions.

In explaining why no wage changes on war construction was intended, the WLB said that the general plan is intended to facilitate the establishment of rates for new jobs and jobs with changed content in plants converting to civilian production. It reported further, "while, in a sense, each new construction contract entails the establishment of rates for new jobs, the jobs themselves in the construction industry are the same in content whether the work is war production construction or civilian production construction. Consequently, the board's statement of May 10, 1945, is inapplicable to the building and construction industry regardless of the type of construction, and therefore the relations of the parties thereto remain subject to existing wage stabilization policies."

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Naval supply depot for Los Angeles - Long Beach

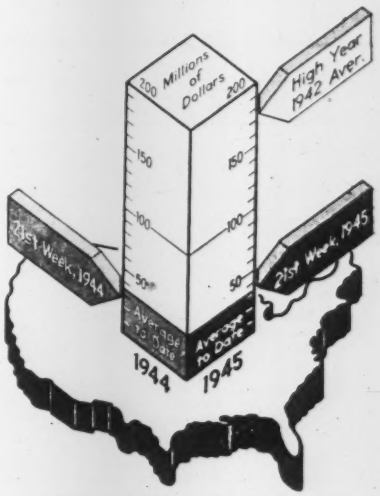
Plans for the construction of a permanent Naval supply depot at Los Angeles-Long Beach Harbor were announced recently by Capt. C. H. Gillillan, commandant of the temporary depot at San Pedro, Calif.

Capt. Gillillan said the permanent site will be made available by transferring a portion of Fort MacArthur from the Army to the Navy. The Bureau of Yards and Docks has already appropriated more than $5,000,000 to acquire a site and construct the permanent supply depot.

The Navy plans to build and extend a wall for a distance of 4,800 ft., thus providing for the berthing simultaneously of at least four large ships and a number of smaller craft. About 225 acres will be included in the site, said Capt. Gillillan.

In the quarter ended March 31 the temporary depot alone handled 383,000 tons of supplies valued at $67,000,000 and serviced 587 Navy vessels ranging in sizes from battleships to submarines and PT boats.

CONSTRUCTION ACTIVITY



As Reported This Week to...
Engineering News-Record

CONTRACT VOLUME

Continental U. S. Only
(Thousands of Dollars)

	Week of May 24 1945	Cumulative 1945 (21 wk.)	Cumulative 1944 (21 wk.)
Federal	$22,923	$387,145	$487,358
State & Municipal	4,623	91,111	77,749
Total Public	$27,546	$478,256	$565,107
Total Private	7,470	185,881	168,912
U. S. Total	**$35,016**	**$664,137**	**$734,019**

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

Type of Work	Dollar Volume (Thousands) This Week	Cumulative 1945 (21 wk.)	Cumulative 1944 (21 wk.)
Waterworks	$1,543	$16,885	$9,613
Sewerage	201	11,901	9,143
Bridges	....	10,494	4,710
Highways	3,858	63,672	67,415
Earthwork, Waterways	545	14,254	22,348
Buildings, Public	15,328	271,724	288,886
Industrial	1,927	127,561	70,914
Commercial	3,530	34,622	78,556
Unclassified	8,084	113,024	182,434

NOTE: Minimum size projects included are: Waterworks and waterway projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1945 (21 wk.)	Cumulative 1944 (21 wk.)
NON-FEDERAL	$247,770	$181,283
Corporate Securities	72,733	82,599
State and Municipal	154,137	44,904
RFC Loans	20,900	53,780
FEDERAL	$251,010	$245,266
Total Capital	**$498,780**	**$426,549**

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	May '45	307.43	147.78
Building Cost	May '45	238.46	128.90
Volume	Apr. '45	99	43

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager — *SCOTT McLEOD, Statistics* — *J. A. MAHONEY, Reports*

(Daily service also available—Write for details)

WATER SUPPLY

PROPOSED WORK

Mass., Kingston (br. Plymouth)—Town. Bd. Water Comrs., Town Hall, rejected bids May 17, well and pump. sta. To exceed $15,000. Will readvertise. Hayden, Harding & Buchanan, 662 Park Sq., Bldg., Boston, engrs.

N. C., Norwood—Town, K. L. Young, mayor, Town Hall, voted bonds, exten. water sys., incl. filtration plant, water supply, $118,000.

O., Youngstown—Comrs. Mahoning Co., Court House, bids soon exten. water line from Meridian Rd. to Mahoning Co. Tuberculosis Sanitorium, and install fire hydrants. $40,000.

Ore., Estacada — City, City Hall, water sys. using pipe already available. **$31,700. FWA funds sought.** Cunningham & Associates, Spalding Bldg., Portland, engrs.

Ore., Metzger—**Metzger Water Dist.**, Metzger, water sys. $66,000. Applied to FWA, C. E. Carter, Spalding Bldg., Portland, engr.

†Tex., Fort Sam Houston—U. S. Eng., Fort Sam Houston, water distr. sys. addns. Brooke General Hospital, Ser. No. W-41-154-45-143. Over $15,000.

Tex., Houston—City, City Hall, 5,300 ft. c.i. water mains, $36,000.

★**Tex., Houston**—City, M. H. Westerman, secy., City Hall, water filtration plant. $1,000,000.

†Tex., Houston—Federal Works Agency, Electric Bldg., Fort Worth, rejected bids May 3, water lines and imprvs. in housing area, Tex. 41-664-F. CD 4/24.

Tex., La Porte—City, drilling, developing water supply well. $15,000.

†Tex., Waco—U. S. Eng., Fort Sam Houston, addnl. waterlines, facilities, Ser. No. W-41-154-45-144. Over $15,000.

Wash., Tacoma—City, City Hall, replacing wooden mains with steel pipe, Park Ave. sect. $250,000. Seeking FWA funds. W. A. Kunigk, City Hall, water supt.

Alta., Calgary—Municipality, 500,000 gal. tank. $90,000.

Alta., Rocky Mountain House—Municipality, WW sys. $90,000.

Que., Pointe Du Lac—Municipality, c/o X. Bisson, Pointe du Lac, WW sys. $30,000.

Que., Ste. Gertrude—Parish of Ste. Gertrude, plans aqueduct. $50,000.

Sask., North Battleford—Municipality, force main, water connections to residences. $50,000.

BIDS ASKED

Bids Asked May 28

Mass., Palmer—Town, Water Dpt., Town Hall, 720,000 gal. 50x50 ft. reservoir. To exceed $15,000. Plans deposit $10. Whitman & Howard, 89 Broad St., Boston, engrs. CD 5/8—ENR 5/10.

Bids Asked May 31

†Tex., Dallas—City, E. Goforth, secy., City Hall, modifications, alterations, electrical wiring of water pump. station Contr. 9, Tex. 41-851-N. **FWA.** Plans deposit $25.

Bids Asked June 1

Wash., Kelso—Home Owners Water Dist., F. Jensen, dist. comr., Box 125, Pacific Hy. No., 200-customer water sys., north of here, with 21,000 ft. 2- to 8-in. pipe and two 75,000 gal. reservoirs. Over $25,000. Plans deposit $5.

Bids Asked June 4

O., Bowling Green—City, 3,000 ft. 6- to 12-in. water supply main. $27,000. Plans deposit $10. Finkbeiner, Pettis & Strout, 1015 Home Bank Bldg., Toledo, engrs. CD 5/9—ENR 5/17.

Bids Asked June 6

O., Cambridge—City, piping and equip., for water treatment plant. Bids May 17 rejected. Finkbeiner, Pettis & Strout, 1015 Home Bank Bldg., Toledo, consult. engrs. CD 5/9—ENR 5/17.

Bids Asked June 12

†Tex., Weatherford — C. Russell, mayor, City Hall, water imprvs., Tex. 41-701-N. **$38,200. FWA.** Plans deposit $25. Tentative date. J. J. Rady, Insurance Bldg., Fort Worth, engr.

Location of ENR Correspondents

Symbols and Abbreviations Include:

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Name in order of Listing)

Water Supply — Latin America
Sewers, Waste Disposal — Public Buildings
Bridges — Commercial Buildings
Streets & Roads
Earthwork, Waterways — Industrial Buildings
Unclassified

Stages Reported

PROPOSED: (except Streets & Roads).
BIDS ASKED (new announcements only). For full calendar, see also preceding issues of ENR.

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

LOW BIDDERS

†Md., Hyattsville — Washington Suburban Sanitary Comn., Hamilton St., May 11, steel standpipe for storing water, Contr. 186-W, from Chicago Bridge & Iron Co., 1700 Walnut St., Phila., Pa., **$62,880.** CD 4/24—ENR 4/26.

Tenn., Johnson City—Mayor and Bd. City Comrs., May 16, WW facilities, from Fiske-Carter Constr. Co., Spartanburg, S. C., **$201,000.** CD 5/1—ENR 5/3.

CONTRACTS AWARDED

†Calif., Sacramento—U. S. Eng., 1209 8 St., Zone 8, water sys. modifications, Sacramento Signal Depot, Contr. W-04-167-eng-929, to E. T. Haas Co., San Mateo, **$29,949.**

★**†Calif., San Diego**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., aqueduct tunnel, Schedules 4, 5 and 6, NOY 11993, to W. E. Callahan Constr. Co., and Gunther & Shirley, 714 W. Olympic Blvd., Los Angeles, **$878,536.** CD 4/10, under LB.

Ind., Fort Wayne—Allen Co., Court House, general contract large reservoir for water storage at Allen County Institutional Power Plant and Laundry, north of here, to Buesching Brothers Constr. Co., 219½ E. Berry St., **$20,228.** Bids 5/10. CD 5/1—ENR 5/3.

†Kansas—U. S. Eng., 10 E. 17 St., Kansas City 8, Mo., gravel wall wells, Sunflower Ordnance Works, Johnson Co., Contr. W-28-028-eng-830, to Layne-Western Co., 2010 W. 39 St., Kansas City, Mo., **$17,896.**

O., Cambridge—City, 1 story, 37x35 ft. water filter bldg., to H. Hamme, Cambridge, **$21,449.** Bids 5/17. CD 5/9-ENR 5/17.

O., Canton—Stark Co., Canton, water lines in Genoa area of Reedurban-Genoa Sanitary Sewer Dist., to L. Walter Fauber, Ashland, **$110,671.** L. K. Zerbe, Canton, co. engr. CD 12/6—ENR 12/14.

O., Zanesville—City, drilling, equipping 16 in. water wells, to Layne-Ohio Co., 2146 W. Town St., Columbus, **$18,385.** Eng. $20,000. Finkbeiner, Pettis & Strout, 1015 Home Bank Bldg., Toledo, consult. engrs. Bids 5/11, awarded 5/17.

Pa., Phila.—City, P. Wks. Dpt., City Hall **Annex, temporary pump house** at Queen Lane Pump. Sta., to J. N. Driscoll, 27 E. Durham St., **$167,137. Awarded** 5/10.

†Tex., Camp Hood—U. S. Eng., Fort Sam Houston, rehabilitation raw water pump station, to Taylor Constr. Co., Taylor, approx. **$15,000.**

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Calif., Los Angeles—City, City Hall, sanitary interceptor sewer in Tyrone Ave. and Riverside Dr., $40,000. L. Aldrich, City Hall, city engr.

N. J., Fairlawn—Boro Council, Municipal Bldg., new bids soon sewerage sys., etc. Bids 4/30 rejected. T. F. Bowe, 110 Williams St., New York 7, N. Y., engr. CD 3/30—ENR 4/5.

N. Y., Hamburg—Town Bd., Town Hall, bids soon sanitary sewer in Locksley Park Section, $85,000.

N. C., Norwood—Town, K. L. Young, mayor, City Hall, voted bonds, sewerage sys. $97,000.

†O., Cambridge — City Council, sewage treatment plant, pump. station, purchase necessary equip., at Fletcher Army General Hospital, $135,000. **FWA.** CD 7/20—ENR 7/27.

O., Columbus—City, City Hall, repairing garbage incinerator, incl. installing automatic stokers, $34,750. P. W. Maetzel, City Hall, city engr.

O., Huron — Village, F. H. McQuillen, mayor, City Hall, storm water sewers in section of East Side Sanitary Sewer Dist. 1, $25,000.

Tex., Houston—City, storm sewers, Bastrop and Walker Sts. $25,000.

†Tex., Houston — Federal Works Agency, Electric Bldg., Fort Worth, rejected bids May 3, sanitary sewer imprvs. in housing, Tex. 41-664-F. CD 5/11—ENR 5/17, under LB.

Tex., Lamarque—Lamarque Developing Co., Lamarque, sanitary sewers. No award to be made and project is deferred until priorities available. (**Correction**—status). CD 3/7—ENR 3/15, under CA.

Alta., Rocky Mountain House—Municipality, sewerage sys. $85,000.

Man., Morden—Municipality, sewage disposal plant. $40,000. J. C. D. Taylor, c/o owner, engr.

Man., Rosser—Municipality, E. J. Burns, secy., Colony Creek drainage, 70,000 cu. yd. excav., etc. $40,000.

Ont., New Toronto (Postal Dist. Toronto)—Municipality, storm sewers, $95,000. W. F. Redfern, Town Hall, engr.

Ont., Owen Sound—City, sewage disposal plant, intercepting sewers, pump. stations, $383,450. W. H. Waddell, c/o owner, and Gore & Storrie, 1130 Bay St., Toronto, engrs.

Ont., Port Arthur—City, sewers in various streets. About $41,000.

Ont., Port Stanley—Municipality, sewerage sys. $50,000. Ontario Dpt. Pub. Health, Toronto, engr.

Sask., North Battleford—Municipality, main sewers, sewer connections to residences, $60,000.

BIDS ASKED

Bids Asked June 1

Calif., San Francisco—Dpt. P. Wks., City Hall, La Playa sewer (West Sunset System—Sect. C) in Great Highway, lower road from Linwoln Way to Lawton St., Spec. 19,921. Plans deposit $10. J. J. Casey, City Hall, city engr.

SEWERS, etc. (Cont'd.)

LOW BIDDERS

Calif., Los Angeles—Los Angeles Co., Hall of Records, May 15, sanitary sewer, Frailey Ave., etc., CI 1070, from P. and J. Artukovich, 3834½ W. Slauson Ave., **$46,491.** CD 4/25—ENR 5/3.

Calif., San Francisco—Dpt. P. Wks., City Hall, sewer Hampshire St. between 25 and Army Sts. (Potrero Ave. Sewer) Spec. 19,941 from M. J. Lynch, Barneveld St. and Oakdale Ave., **$33,557.** J. J. Casey, City Hall, city engr.

Calif., Stockton—City, City Hall, May 14, exten. storm sewer in Fremont Channel, Minor Channel and McLeod Lake, from Stockton Constr. Co., 40 W. Clay St., **$36,693.** CD 5/4.

O., Xenia—City, City Hall, May 4, imprv. sewage treatment plant consisting rein.-con. tanks, wells, turbine pumps and sludge removal equip., from Crew Constr. Co., 1177 Morgan St., Park Hills, Ky., **$93,960.** Est. $105,000. R. T. Parrish, N.B. Bldg., Dayton, engr. CD 4/10—ENR 4/12.

BRIDGES

PROPOSED WORK

Mo., Kansas City—K. K. King, dir. P. Wks., rejected bids Apr. 10, repairing, strengthening 23 St. viaduct. Will readvertise. Howard-Needles-Tammen & Bergendoff, 921 Walnut St., engrs. CD 4/17—ENR 4/19, under LB.

O., Hamilton — Bd. Comrs. Butler Co., Court House, 4 bridges. $50,000. F. M. Hammerle, Court House, co. engr.

O., Lima—Bd. Comrs. Allen Co., Court House, imprv. 16 bridges. $16,000. H. M. Mumaugh, Lima, co. engr.

O., Springfield — Bd. Comrs. Clark Co., Springfield, imprv. 12 bridges. $40,000. R. E. Deam, Springfield, co. engr.

R. I., Newport—City, Dpt. P. Wks., City Hall, new type Green Bridge over Goose Creek, north of old bridge. Over $25,000.

BIDS ASKED

Bids Asked May 29

New Hampshire—State Hy. Dpt., Concord, 408 ft. deck plate girder bridge, approaches, in Conway, Carroll Co. H. E. Langley, Concord, engr.

Bids Asked June 6

Louisiana—Dpt. Hys., Baton Rouge, one 70 ft. and two 60 ft. steel I-beam span bridge on steel (H) pile bents, 0.17 timber trestle approach spans, etc., 0.097 mi. S.P. 78-02-01, Twelve-Mile Bayou Bridge (Twin Mooring's Ferry) on State Route C-2112, Caddo Parish.

Bids Asked About July 7

★ **Calif., Long Beach**—City Hall of Records, City Hall, 2 Los Angeles River bridges, at Long Beach Blvd., $800,000; other at Willow St., $500,000. Donald R. Warren Co., 500 S. Figueroa St., Los Angeles, engrs. CD 10/20—ENR 10/26.

STREETS AND ROADS

BIDS ASKED

Bids Asked May 28

Connecticut—Wm. J. Cox, comr. State Hy. Dpt., Hartford, graveling 20,387 ft. Brookfield, Plans deposit $8.50; 6,976 ft. Burlington, Plans deposit $4.08; 28 ft. span beam bridge with rein.-con. deck, Thomaston, Plans deposit $2.04.

Bids Asked May 29

Ia., Eldora—Bd. Supervs. Hardin Co., constructing maintenance graveling 32.7 mi. various secondary roads, involving 16,800 cu. yd. gravel, 235,200 add. half mile units of haul, 2,526 cu. yd. stripping. Over $25,000. R. T. Johnson, Eldora, co. engr.

★ **Ohio**—State Hy. Dpt., Columbus, asphaltic concrete resurfacing 3.781 mi. Sects. F and L, SH 8, Clermont Co. $53,900; 0.842 mi. Sect. Cleveland, SH 3, US 6, Cuyahoga Co. $42,440; 11.875 mi. Sects. B, C, N, Mount Sterling A, O and F-2, SH 50, US 62, Fayette, Madison and Pickaway Counties $150,000; 8.806 mi. Sects. B, C and D, SH 226, Logan Co. 106,150; 3.563 mi. Sect. Sheffield Lake, Lorain SH 3, US 6, Lorain Co. $57,800; 6.097 mi. Sects. G, Marion and F, SH 114, US 30-S and Sect. B-2 SH 111, Marion Co., $82,400; 4.919 mi. Sects. D, Brady Lake and Ravenna, SH 323, Portage Co. $90,600; 2.912 mi. Sects. R, Shanesville, Sugar Creek and P, Sugar Creek and Shanesville, Tuscarawas Co. $39,650; 3.284 mi. Sect. I-1 and J, SH 264, US 35, Ross Co. $49,000; widening, asphaltic concrete resurfacing 4.886 mi. Sects. O and M, SH 344, Muskingum Co. $98,600; 3.358 mi. Sects. H-2, and H-1, SH 15, US 322, Geauga Co. $69,450; 4.001 mi. Sects. A and Lewisburg, SH 1, US 40, Preble Co. $92,060; bituminous treating 46.25 mi. Sects. SH 117, 240, 191, 242, 239, 238 and 714, $41,912; 65.75 mi. SH 524, 113, 110, 111 116, 883, 573, 558, 116, 911 and 791, $46,433, both in Delaware and Marion Counties; 19.07 mi. SH 648, 850, 888, 722, 872 and 474, Summit Co. $43,639; 20.3 mi. SH 365, 258, 5 and 363, Pike and Ross Counties, $53,745; 20.37 mi. SH 4, 335 and 587, Marion and Morrow Counties $48,832; 13.87 mi. SH 916, 541 and 144, Lorian and Medina Counties $46,739; 36.97 mi. SH 341, 588, 720, 70, 713 and 547, Holmes and Tuscarawas Counties $74,944; 17.5 mi. SH 324, 474, 585, 76, 326 and 71, Geauga, Portage, Stark and Summit Counties $36,343; 24.91 mi. SH 91, 466, 146, 34, 593, 3 and 826, Cuyahoga and Lake Counties $48,779; 16 mi. SH 959, 871 and 186, Butler, Montgomery and Preble Counties $25,529; 15.24 mi. SH 40 and 959, Butler Co. $37,003; 41.25 mi. SH 295, 101, 107, 392, 701 and 104, Belmont and Noble Counties $113,484; 26.77 mi. SH 146, 145, 436 and 69, Ashland, Richland and Wayne Counties $44,487.

O., Toledo—J. H. Jewhurst, service dir., City Hall, construct, repair approx. 332,000 sq. ft. sidewalk surface. $115,000.

Bids Asked May 31

Tex., Houston—Harris Co., Courthouse, roadwork, Precincts 2 and 3. Over $25,000.

Wash., Seattle—City, County-City Bldg., 3 and James Sts., Zone 4, concrete paving Island Dr. from Park Dr. to Lake Washington, Cloverdale St. from Island Dr. to 54 Ave. S. $26,135. C. L. Wartelle, County-City Bldg., 3 and James Sts., Zone 4, city engr.

Bids Asked June 4

La., Alexandria—City Council, City Hall Bldg., concrete curbs, gutters, 1 in. asphalt on 6 in. soil cement stabilized paving 12 St. from Elliot St. to Rapides Ave., Cottage St. from Orchard St. to Rapides Ave., sidewalks, curbing, Houston St. from Fenner St. to Texas Ave., Mill St. from Dana Ave to Huffman St.

Bids Asked June 5

Washington—State Hy. Dpt., Olympia, removing guard rail and constructing new guard rail on Secondary State Hy. 15-B, Duvall to Cherry Creek, King Co.; scarifying, reshaping, reinforcing existing surface with crushed stone, crushed cover stone and mineral aggregates, light bituminous surface treatment Primary State Hy. 9, Fairholm West, manufacturing, stockpiling crushed stone surfacing, top course and mineral aggregate, resurfacing and light bituminous surfacing treatment Primary State Hy. 9, Lake Crescent to Lake Sutherland, both Clallam Co.; ballasting fresh stone surfacing, light bituminous surfacing Primary State Hy. 5, Carbonado to park boundary; draining, shoulders, manufacturing stockpiling surfacing materials, asphaltic concrete paving and non-skid single seal treatment Primary State Hy. 5, and Secondary State Hys. 1-X, 5-D and 5-E, Sumner to Buckley, both Pierce Co., manufacturing, stockpiling mineral aggregate, reseal treatment, non-skid single seal treatment, light bituminous surfacing Primary State Hys. 3 and 18 and Secondary Hy. 4-B and 11-C, Palouse to Pullman, Whitman and Lincoln Counties. Plans deposit $2 each. C. E. Hickey, Transportation Bldg., Olympia, state hy. dir.

Bids Asked June 6

California—State Div. Hys., P. Wks. Dpt., Sacramento, grading plant mix on crusher run and imported base material surfacing, 1.2 mi. access road from Maitland Dr. to Earhart Rd., in Auxiliary Naval Air Station, Oakland Airport, Alameda Co.; plant mix surface repairing about 2.2 mi. road between 1.2 mi. south of Famoso, and 1 mi. north of Famoso, Kern Co.; furnishing, placing imported base material and applying armor coat 2 mi. road between Northwestern Pacific Railroad underpass and 1.1 mi. south of Willits, Mendocino Co., G. T. McCoy, state hy. engr.

Louisiana—State Dpt. Hys., Baton Rouge, grading, drainage structures, etc., 0.189 mi. S.P. 78-02-02 Junction Route 995-Mooringsport Hy., State Route C-2112 (Old Route 8), Caddo Parish.

Bids Asked June 7

California—State Div. Hys., State Bldg., Los Angeles, plant mix on untreated rock base repairing 3.4 mi. road between 0.6 mi. northwesterly of Huenemne Rd. and Calleguas Creek, Ventura Co.; placing plant mix surfacing over existing surface and reshaping shoulders 7.25 mi. between Daggett & Hector, San Bernardino Co.; 22 mi. road between Barstow and Field, San Bernardino Co. G. T. McCoy, P. Wks. Bldg., Sacramento, engr.

Bids Asked June 8

Kentucky—State Hy. Dpt., Frankfort, grading, draining and traffic bound surfacing 4.9 mi. four sections on Closplint-Virginia Line Rd. beginning near Closplint and extending to improved section of road approx. 2½ mi. west of Virginia state line, SP 48-48, Harlan Co.; 3.181 mi. Grinstead Dr. in Louisville from Cherokee Rd. to 283 ft. east of Ray Ave., Eastern Parkway from Baxter Ave. to 650 ft. east of Dahlia Ave., 18 St. Rd. from Bernheim Lane to pavement in Shively, SP 56-158, 56-178; 56-698, Jefferson Co.; bituminous resurfacing 0.608 mi. State St. from 8 St. to 130 ft. south of 12 St., and College St. from Main St. to 11 St., in Bowling Green, SP 114-168, 114-188; 114-338, Warren Co.; 11.901 mi. Lexington-Cincinnati Rd. from 3,431 ft. north of junction with Ky. 338 at Richwood to south corporate limits of Crittenden, SP 8-10, 59-115; 41-14, U.S. 25; 0.711 mi. Walton Nicholson Rd. from near Southern Railroad Overhead near Walton to junction with U.S. 25, at Walton, SP 8-39, Ky. 15, both Boone, Kenton and Grant Counties; 10xsx79 ft. Concrete culvert at Sebastian Creek approx. 16 mi. south of Jackson, Shoulder Blade Buckhorn Rd., SP 13-147, Breathitt Co.

Bids Asked June 11

New Jersey—State Hy. Dpt., Trenton, partial repaving Route 25, Sects. 4D, 5D, 6C, 7D and 8H, between intersection Route S-26, and Port Reading Railroad and between Woodbridge Cloverleaf and city line of Elizabeth, Middlesex and Union Counties; repaving 2,600 ft. Route 25 connecting link at easterly end of Pulaski Skyway, exten. from point west of Charlotte Ave. to point west of Tonnele Ave. Circle; resurfacing 1.086 mi. Route 27, Sect. 17, Nassau St. from Bayard Lane to Harrison St., Princeton Boro, Mercer Co.; raising, repaving approaches to Matawan Creek Bridge, Route 35, Sect. 34C, Matawan Twp. and Keyport Borough, Monmouth Co.; constructing 0.257 mi. Oakdene Ave. Storm Drain on Route 6, Sect. 3, Fort Lee and Leonia Boroughs, Bergen Co. Plans deposit $10. A. L. Grover, ch. clk.; adv. ENR 5/24.

Bids Asked

Kentucky—State Dpt. Hys., Frankfort, rejected bids May 11 imprv. 0.265 mi. Hopkins Co. CD 4/24—ENR 4/26.

Tex., Houston—City, M. H. Westerman, secy., City Hall, (1st unit) street surface program, incl. sealcoating Texas Ave., Winkler Dr., Main, Louisiana, Dallas, Broadway, Lawndale, Polk and Telephone Sts. $45,000.

LOW BIDDERS

California—State Div. Hys., Sacramento, May 16, imprv. 13 mi. Merced Co., from Frank B. Marks & Son and W. C. Harding, 27 Lowell St., Redwood City, **$179,847***** 2.4 mi. Alameda Co., from A. S. Jones, Box 3067, Brown's Valley Rd., Napa, **$45,188***** 9.5 mi. Santa Barbara and San Luis Obispo Counties from Brown, Doko & Baun, Dolliver St., Pismo Beach, **$75,360***** 4 mi. Stanislaus Co., from M. J. Rady, 922 Jay St., Modesto, **$77,394.** CD 5/1—ENR 5/3.

Idaho—Comr. P. Wks., Boise, May 11, sealcoat surfacing 9.58 mi. State Route 28, between Salmon and Baker, and 25.32 mi. incl. 2 mi. bituminous resurfacing & U. S. 93, between Salmon and McKim Creek, Lemhi Co., from Duffy Reed Constr. Co., Twin Falls, **$30,136.** Est. $39,000.

★ **Illinois**—State Dpt. Hys., Springfield, May 18, imprv. 3.08 mi. Mannheim Rd., Cook Co., from Graham Paving & Constr. Co., 30 N. LaSalle St., Chicago, **$122,575***** 2.44 mi. 95 St., Cook Co., from American Asphalt Paving Co., 20 S. LaSalle St., Chicago, **$77,548***** 7.68 mi. Torrence Ave., Cook Co., from Gallagher Asphalt Co., Thornton, **$177,897***** 11.34 mi. Massac and Johnson Counties, from C. G. Gilmore Asphalt Products Co., Anna, **$158,294***** concrete patching U.S. Route 45, Iroquois and Kankakee Counties, from Superior Concrete Constr. Co., 5113 S. Woodlawn St., Chicago, **$30,278.** CD 5/15.

Ky., Louisville—City, Dpt. P. Wks., May 7, imprv. Christy and Standard Aves., 24, Hull, Slevin, Ninth and Kentucky Sts., from Breslin Constr. Co., 1801 S. Brook St., **$39,388.**

Maryland—State Roads Comn., Baltimore, May 15, imprv. 6 mi. Prince Georges Co., from Eastern Highways Corps., Brooklyn, **$51,930;** 4 mi. Howard Co., from American Paving & Contracting Co., 2525 Loch Raven Rd., Baltimore, slag **$158,790.** CD 5/2—ENR 5/10.

Mass., Boston—City Dpt. P. Wks., City Hall, May 15, sheet asphalt paving Beacon St. and Chestnut Hill Ave., from Baker & Co., 1335 Hyde Park Ave., Hyde Park, **$54,363.** CD 5/9.

†**Neb., Sidney**—U. S. Eng., 909 17 St., Denver, Colo., May 14, 14 mi. access roads at Sioux Ordnance Depot, from Peter Kiewit Sons Co., Box 4149 So. Denver Station, Denver, colo., **$64,338.**

Nevada—State Dpt. Hys., Carson City, applying seal coat and screenings, Mineral, Esmeraida and Nye Counties, from Dodge Constr., Inc., Fallon, **$57,113.** R. A. Allen, state hy. engr.

Pennsylvania—State Hy. Dpt., Harrisburg, May 15, imprv. 1.16 mi. Beaver Co., from Dinardo, Inc., Herron Ave. Bridge, Pittsburgh, **$100,205***** 0.99 mi. Clearfield Co., from Harrison Constr. Co., 1101 Western Ave., Pittsburgh, **$34,943***** 1.63 mi. McKean Co., from Mayer Bros. Constr. Co., 1225 W. 18 St., Erie, **$36,444***** 2.34 mi. Montgomery Co., from Bitu-Rock Corp., 1518 Walnut St., Phila., Zone 2, **$37,773***** 0.6 mi. Tioga Co., from Ryan Bros., Inc., Clearfield, **$27,274.** Withdrew bids to have been opened May 15, imprv. 1.36 mi. Allegheny Co. CD 4/23.

†**Tex., Fort Sam Houston**—U. S. Eng., Fort Sam Houston, May 13, roads and sidewalks at Brooke Convalescent Hospital, Ser. W-41-154-45-135, from Dean Word, Box 330, New Braunfels, **$159,417.**

CONTRACTS AWARDED

†**Calif., Santa Maria**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 55, asphalt, petroleum, road and pavement, Contractor's Refinery 25, Contr. W-04-353-eng-MSP-1430, to Five "C" Refining Co., 549 S. Olive St., Los Angeles, **$35,400;** Contr. W-04-353-eng-MSP-1431, to Bell Oil & Refining Co., 621 S. Hope St., Los Angeles, **$53,700.**

STREETS, etc. (Contracts Awarded, Cont'd.)

Iowa—State Hy. Comn., Ames, imprv. 128.865 mi. MD-42, Dist. 4, to Gee Constr. Co., Shenandoah, and Western Eng. Co., Harlan, **$167,293**; 79.651 mi. MD-13, Dist. 1, to Iowa Road Building Co., 1495 Keo Way, Des Moines, **$95,399**. Bids 5/15. Rejected bids May 16, imprv. Proj. T-874-B, Story Co.; 10.2 mi. Proj. M-6210, Cedar Co.; 47.3 mi. Keokuk Co.; 24.776 mi. MD-52, Dist. 5; 1.925 mi. State Park; Proj. M-4321; Proj. M-5279-A. Received no bids May 15, imprv. 23 mi. M-6206, Dubuque and Jackson Counties. CD 5/8—ENR 5/10.

Ia., Algona—Kossuth Co., Algona, imprv. various secondary roads in Kossuth Co., to Bagley Constr. Co., Perry, **$82,640**. CD 5/1—ENR 5/3.

Kansas—State Hy. Dpt., Eureka, imprv. 26.9 mi. Project 4519, Greenwood Co., to Reno Const. Co., Overland Park, **$26,073**. Bids 4/20, awarded 5/8. CD 4/13.

Kansas—State Hy. Dpt., El Dorado, imprv. 9.081 mi. Barton Co., to J. H. Shear's Sons, Hutchinson, **$34,154**. Bids 4/27. Rejected bids Apr. 27, imprv. 155.226 mi. hys. Reno, Barber, Harper, Barton, Rush, Pawnee, Edwards and Butler Counties, R. C. Keeling, Topeka, engr. CD 4/18—ENR 5/14.

Minnesota—State Hy. Dpt., St. Paul, imprv. 32 mi. Maintenance Dist. 15, to G. D. Alexander, 4641 Hiawatha Ave., Minneapolis, **$30,841***60 mi. Maintenance Dist. 16, to Megarry Bros., St. Cloud, **$54,342***production mineral aggregate for bituminous surfacing, crushing, screening, loading and hauling about 26,255 cu. yd., at Morris, to W. Zaska, Danube, and Cosh Bros., Herman, **$35,897**. Grand total $121,080. Bids 4/27. CD 4/11—ENR 4/19.

Minnesota—State Hy. Dpt., St. Paul, imprv. 31 mi. Maintenance Dist. 2, to J. H. Ganley, 2336 Hampden Ave., St. Paul, **$40,546** ***approx. 58 mi. Maintenance Dist. 3, 24,325 cu. yd. mineral aggregate, 534,000 gal. bitum. material, Sects. 0412-0413 and Sects. 0410-2902, to C. L. Nelson Co., Brainerd, and R. C. Jones, Deerwood, **$33,736** and **$25,677** respectively***64 mi. Maintenance Dist. 4, 26,435 cu. yd. mineral aggregate, 496,000 gal. bitum. material, Sects. 4904-7704 to Duininck Bros. & Gilchrist, Olivia, **$34,429**, and Sects. 1116-1117, to Zontelli-Herbison, Inc., Ironton, **$31,468**. Grand total $165,856. Bids May 4. CD 4/19—ENR 4/26.

★**Ohio**—State Hy. Dpt., Columbus, May 15, from Fenton Constr. Co., Box 445, Ashland, imprv. 11.6 mi. Ashland Co., **$41,778**, est. $44,178; 47.29 mi. Athens, Hocking, Meigs, Morgan and Vinton Counties, **$125,269**, est. $125,990; 43.83 mi. Gallia, Meigs and Vinton Counties, **$109,773**, est. $112,638*** from L. P. Cavett Co., 511 Shepherd Ave., Lockland, Zone 15, 18.55 mi. Brown and Highland Counties, **$38,313**, est. $42,380; 20.8 mi. Clermont and Warren Counties, **$16,489**, est. $49,686***from C. J. Shelly, Thornville, 32.74 mi. Guernsey, Morgan and Noble Counties, **$90,764**, est. $94,674; 38.16 mi. Knox and Licking Counties, **$60,889**, est. $61,478***from Maumee Asphalt Paving Co., 1713 Second National Bank Bldg., Toledo, Zone 4, 2.444 mi. Hancock Co., **$26,751**, est. $27,720***from R. J. Dienst, 297 S. High St., Columbus, imprv 13.724 mi. Madison and Union Counties, **$128,000**, est. $152,460***from Arthur S. Langenderfer & Co., P.O. Box 815, Toledo, Zone 1, 3.528 mi. Sandusky Co., **$57,451**, est. $58,300***from Southern Ohio Quarries Co., 150 E. Broad St., Columbus, 15.04 mi. Adams Co., **$31,885**, est. $33,522***from N. S. Constr. Co., 115 E. Johnson St., Upper Sandusky, 20.4 mi. Allen, Hancock and Hardin Counties, **$33,765**, est. $36,300***from Central Ohio Road Constr. Co., 13 E. Corry St., Cincinnati, 56.31 mi. Auglaize, Champaign and Logan Counties, **$67,354**, est. $67,520***from City Asphalt & Paving Co., 120 Pike St., Youngstown, Zone 2, 20.45 mi. Columbiana and Mahoning Counties, **$34,227**, est. $35,279***from S. B. Hull, Hull Resurfacing Co., Box 548, Butler, Pa., 39.81 mi. Columbiana and Mahoning Counties, **$45,487**, est. $45,794***from Bucyrus Materials Co., Bucyrus, 34.52 mi. Crawford, Erie and Huron Counties, **$28,955**, est. $29,966***from H. J. Hart, P.O. Box 392, Elyria, 17.36 mi. Erie and Huron Counties, **$38,938**, est. $40,770***from C. J. Uible, New Vienna, 11.2 mi. Scioto Co., **$38,685**, est. $42,375***from Bower & Taylor, Farmdale, 43.78 mi. Trumbull Co., **$29,899**, est. $31,402 ***from U. S. Constr. Co., 115 E. Johnson St., Upper Sandusky, 18.71 mi. Wyandot Co., **$46,835**, est. $52,442. Cancelled bids to have been opened May 15, imprv. 6.977 mi. Hancock Co. CD 5/3—ENR 5/10.

Ore., Pondosa—Collins Pondosa Lumber Co., Pondosa, 7 mi. road to junction of west Eagle and main Eagle Creeks, in Blue Mountains, Whitman National Forest, day labor. **$41,700.**

Washington — State Hy. Dpt., Olympia, imprv. 44.87 mi. Spokane, Stevens and Pend Oreille Counties, to F. R. Hewett Co., 420 W. 22 St., Spokane, **$58,628**. Bids 5/15. CD 5/1—ENR 5/3.

EARTHWORK, WATERWAYS

PROPOSED WORK

R. I., Warwick—State of Rhode Island and Providence Plantations, Div. Forests and Parks, State House, Providence, plans nearing completion wood bulkhead at Goodard Park. To exceed $25,000.

Alta., Calgary—Municipality, Elbow River banks imprvs. **$60,000.**

★**Alta., Red Deer**—Prairie Farmer's Rehabilitation Admin., E. L. Gray, supt., Regina, Sask., irrigation scheme for Red Deer Dist., and irrigating 8,000 acres, involving damming Red Deer River. **$6,500,000.**

BIDS ASKED

Bids Asked June 1

†**Tennessee**—U. S. Eng., P. O. Box 97, Memphis, Zone 1, solid sodding approx. 66,000 sq. yd. graded river bank on left descending river bank of Tennessee Chute of Mississippi River, along Riverside Park.

Bids Asked June 4

La., Houma—Water Lily Com. of the Police Jury of Terrebonne Parish, dredging approx. 21,580 cu. yd. canal beginning at west side of U. S. 90 Hy., about 1 mi. north of city of Houma, westerly along a ditch known as South Line Ditch, for approx. 0.6 mi. to city limits. T. Baker Smith, Houma, engr.

Bids Asked June 5

Mich., St. Clair Shores—G. McCordic, engr.-dir. Huron-Clinton Metropolitan Auth., 2456 Penobscot Bldg., Detroit, park fill and appurtenant work. incl. 2,192,000 cu. yd. sand fill, hydraulic fill from Lake St. Clair or alternate of 2,641,000 cu. yd., Harrison Twp. Plans deposit $10. Ayres, Lewis, Norris & May, 506 Wolverine Bldg., Ann Arbor, engrs.

LOW BIDDERS

†**Calif., Santa Barbara**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 55, May 15, dredging, depositing 460,000 cu. yd. material in Santa Barbara Harbor, Inv. 101, from Case-American, Berth 109, San Pedro, **$102,700**. CD 5/3.

†**Louisiana**—U. S. Eng., foot of Prytania St., New Orleans, May 17, removal and disposal approx. 3,450,000 cu. yd. material in maintenance dredging in 30 x 250 ft. channel of Calcasieu River and Pass, Calcasieu Parish, from Atlantic Gulf & Pacific Comn., Citizens State Bank Bldg., Houston, Tex., **$165,600**. CD 5/8—ENR 5/10.

†**Tex., Dallas**—U. S. Eng., 606 Santa Fe Bldg., Galveston, May 17, compacted embankment for levee repairs and set back levee on east fork of Trinity River, Dallas Co. Levee Imprv. Dist. 6, from J. O. Robertson & Son, Springtown, **$35,549**. CD 4/27—ENR 5/3.

CONTRACTS AWARDED

†**Calif., Fort Baker**—U. S. Eng., 74 New Montgomery St., San Francisco, repairs, addns. at East Breakwater, to Macco Constr. Co., Freight and Ferry Sts., Oakland, **$38,120.**

†**Mass., Sandwich**—U. S Eng., 31 St. James Ave., Boston, Zone 16, dredging in Cape Cod Canal, Constr. 19-023-45-Neg-124, to Bay State Dredging & Contg. Co., 62 Condor St., East Boston, **$34,034.**

†**Mont., Missoula** — **Bureau Reclamation**, Hamilton, earthwork and structures, Station 0 plus 00 to Station 515 plus 30, Big Flat Canal and laterals, Big Flat Unit, Missoula Valley Project, Spec. 1096, to Otis Williams & Co., P. O. Box 1124, Helena, **$129,951.** Bids 5/15—CD 4/23—ENR 4/26.

O., Cincinnati—Dpt. P. Wks., City Hall, repairing flood damage to Beechmont Ave. levee from Wilmer St. to Little Miami River Bridge, incl. excav., repairing, replacing about 1,700 sq. yd., and 1,500 sq. yd. bituminous material road shoulders, to Foley Constr. Co., Boudinot Ave. and C & O R. R., **$31,758**. Est. $35,000. Bids 5/1. H. H. Krantz, City Hall, city engr.

Ont., Sebringville — J. J. Brown, clk., Ellice Twp., Sebringville, dredging East Black Drain, removing 120,000 cu. yd. earth to Denstedt Bros., Milverton, **$25,570.** Est. $30,000. Bids 4/30, awarded 5/5. CD 4/20—ENR 4/26.

LATIN AMERICA

Argentina, Guayquiraro—Argentine Republic, Buenos Aires, will construct road from Guayquiraro across the Corrientes Province to Paso de Los Lilires, by day labor. **1,343,487** Pesos. Ministry of P. Wks., Buenos Aires, engr.

Brazil, Rio Grande do Sul—State Government, Rio Grande do Sul, plans 5 dams. $1,000,000. Dpt. Wks., Rio Grande do Sul, engr.

Brazil, Rio Grande do Sul—Ctate Govt., Rio Grande do Sul, plans 2 coal burning electric power plants. $1,800,000. Dpt. Wks., Rio Grande do Sul, engr.

Chile, Santiago—Caga Nacional de Empleados Publicos, 7' Periodistas, Santiago, plans dwelling. **$484,000.**

Colombia, Bogota—Municipality, plans enlarging Regadero Dam to enable dam to store 8 million cu. meters of water. **$300,000.**

Colombia, Bogota—Republic of Colombia, Bogota, will construct military hy., by day labor **4,600,000** Pesos. Ministry of P. Wks., Bogota, engr.

Costa Rica, Alaquela—Tobacco Growers Assn., Palmares, plans cigarette factory, etc. $100,000.

Costa Rica, San Jose—Cia Costarricense del Tanino, San Jose, plans tanning plant and plant for extracting and crystallizing tanin from Manle tree. **$100,000.**

Ecuador, Guayaquil — Municipality, plans new water sys., bringing water from Daule River, 12 mi. above city. **$4,000,000.** CD 3/12—ENR 3/15.

Mexico, Larma—City, Municipal Bldg., bids in June, 2 story school, ample playgrounds. **$200,000.** CD 4/4—ENR 4/9.

Mexico, Matamoros—City, L. Cardenas, mayor, bids within 60 days, hospital **$450,000.** CD 12/6—ENR 12/7.

Mexico, Mazatlan—Municipal Govt., Palacio Municipal, Mazatlan, Sinaloa, plans 250-bed hospital, **$400,000.**

Mexico, Mexico City—Carmen C. de Gonzales Coslo, Mexico City, bids within 90 days, candy factory, at Lago Alberto 442, **$580,000.** L. Martinez Negrete, Mexico City, archt.

Mexico, Mexico City—Jose Creixell, Articulo 123 Number 129, Mexico City, plans business block. **$700,000.**

Mexico, Mexico City—Elias Pando P, Mexico City, bids late summer business bldg., Mesones St. **$518,000.** Shafik Kaim, Mesones 16, Mexico City, archt.

Mexico, Mexico City—Juan Sordo Madaleno, Morelos, 110, Mexico, D. F., making plans offices and stores. **$300,000.**

Mexico, Suchiate—City, Municipal Bldg., bids within 3 months school, gym., playgrounds, etc. **$200,000.**

Santo Domingo, Ciudad Trujillo—Dominican Republic, Ciudad Trujillo, 30 in. concrete water pipeline from reservoir to city, to Lock Joint Pipe Co. Inc., Ampere, N. J., **$1,468,268**. Director General of Public Works, Ciudad Trujillo, engr.

Venezuela, Caracas — Linea Aeropostal Venesolana, Caracas, plans domestic airport on outskirts of city. **$150,000.**

PUBLIC BUILDINGS

PROPOSED WORK

†**Calif., Beaumont**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., architectural and engineering services by Myron Hunt & H. C. Chambers, 420 Spreckles Bldg., San Diego, Zone 1, addnl. bldg., alterations and repairs, Naval Hospital.

†**Calif., Inyokern**—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash. 25, D. C., school, incl. sanitary facilities, appurtenances incl. septic tank, and disposal and 10,000 gal. elevated water storage tank, for Indian Wells Valley Elementary School Dist., Calif. 4-727-F. **$130,000. FWA.**

Calif., Petaluma—Petaluma School Dist., Petaluma, $476,000 bond election June 12, gymnasium, swimming pool, manual training and automobile repair bldg., at High School.

†**Calif., San Leandro**—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash. 25, D. C., plans by Dragon & Schmidts, 2068 Allston Way, Berkeley, school for San Leandro School Dist., Calif. 4-688-F. **$107,000. FWA.**

★†**Calif., Sacramento**—U. S. Eng., 1209 G St., Zone 8, Sacramento Signal Depot, near here, incl. four 1,000,000 sq. ft. warehouses, 1,000,000 sq. ft. open storage, 250,000 sq. ft. hardstanding, rail yard, administration bldg., depot motor vehicle maintenance bldg. and shops, switch engine shelter, gasoline station entrance and exit gate, inflammable storage bldg., Post Engineer yard and shops, base camp for 500 Prisoners of War, housing for 500 enlisted men and 20 officers, bachelor officer quarters, civilian cafeteria, etc. $7,000,000.

★†**Conn., Newington** — Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash., D. C., bids soon veterans hospital. $724,893.

†**Ga., Aragon**—Polk Co. Bd. Educ., c/o Supt., Cedartown, plans by Francis M. Daves & Associates, 774 Spring St., N.W., Atlanta, school, Ga. 9-327. $33,200 **FWA.** CD 5/2—ENR 5/10.

†**Ga., Dacula**—Gwinnett Co. Bd. Educ., N. H. Knight, supt., Lawrenceville, plans by Francis M. Daves & Assoc., 774 Spring St. N.W., Atlanta, 12 classroom school, Ga. 9-347. $89,000. **FWA.** CD 5/2—ENR 5/10.

Ind., Brazil—City, C. P. Keller, supt. Schools, 300 West National Hy., 2 or 3 story, brick, steel Junior High School, $175,000 or more with equip.

†**Ind., Burns City**—Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, Ill., received no bids May 16, 100 trailer unit housing and community bldg., Ind. 12198. E. Gunsfield, 540 N. Michigan Ave., Chicago, Ill., archts. CD 12/14—ENR 12/21.

PUBLIC BLDGS. (Proposed Work, Cont'd.)

†**Mass., Dorchester**—St. Mary's Infant Asylum & Lying-In Hospital, 90 Cushing Ave., plans by T. F. McDonough, 25 Huntington Ave., Boston, hospital, Mass. 19-214-N. $400,000. **FWA**

★**Minn., Faribault** — State Dpt. Admin., M. S. Cooper, dir. Purchases, 19 State Capitol, St. Paul, plans by H. H. Crawford & P. P. Bross, Rochester, and Ellerbe & Co., 1021 E First National Bank Bldg., St. Paul, assoc. archts., four 2 and 3 story, brick, hollow tile dormitories, also bldg. addns., alterations, at School for Feeble Minded. $877,000. CD 4/14/43—ENR 4/22/43, under Postwar Projects.

Minn., Litchfield—City, R. W. Swanson, clk., power plant imprvs. furnishing, installing new boiler, some bldg. changes, etc. $193,000. Pfeifer & Schultz, 702 Wesley Temple Bldg., Minneapolis, engrs.

†**N. M., Alamogorda**—Pub. Housing Auth., NHA, 1411 Electric Bldg., Seventh and Lamar Sts., Forth Worth 2, Tex., postponed indefinitely bids to have been opened May 16, 100 family stop-gap dwelling units, N.M. 29192. W. C. Kruger, Sena Plaza, Santa Fe, archt. CD 4/27—ENR 5/10.

†**N. Y., Northport**—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash., D. C., bids soon veterans hospital alterations, addns., $148,000. CD 2/14—ENR 2/22.

†**Okla., Tulsa**—Hillcrest Memorial Hospital, 403 McBurney Bldg., plans by L. B. Senter, 306 Philtower Bldg., nurses home, 1653 E. 12 St., Okla. 34-198. $223,744. **FWA.** CD 9/21—ENR 9/28.

★**Pa., Yardley**—Yardley, Lower Wakefield & Follsington Twps., c/o Yardley School Bd., Yardley, Senior High School. $500,000.

†**Tex., Beaumont**—Pub. Housing Auth., NHA, Longfellow Bldg., Connecticut Ave. at M St. N.W., Wash. 25, D. C., 100 housing units, $300,000.

Tex., Cypress—Cypress-Fairbanks Consolidated School Dist., Cypress, rejected bids brick, concrete, stone, school. $150,000. Voelcker & Dixon, 2801 San Jacinto St., Houston, archts. CD 5/1—ENR 5/3.

†**Tex., Fort Sam Houston**—U. S. Eng., Fort Sam Houston, three 2 story, 30 x 130 ft., masonry type guest houses at Brooke General Hospital, Ser. No. W-41-154-45-133.

†**Tex., Fort Sam Houston**—U. S. Eng., Fort Sam Houston, altering, converting barracks, mess hall and administration bldgs., Ser. No. W-41-154-45-140. $150,000.

★†**Tex., Houston**—Houston Housing Auth., J. P. Hamblen, chn., Houston, 300 housing units, for Latin Americans, for NHA. $1,000,000.

Tex., Katy—Katy Independent School Dist., c/o T. J. Heinemeier, supt., Katy, plans by E. G. White, 1648 Castle Court, Houston, and bids soon school building program. $250,000 bonds voted.

†**Tex., Temple**—U. S. Eng., Fort Sam Houston, constructing, providing interconnections for 2 boiler plants, Ser. No. W-41-154-45-146. Over $40,000.

†**Va., Alexandria**—Alexandria School Bd., plans by W. T. Dixon, State Office Bldg., Richmond, George Washington High School addn. Approx. $200,000.

★**Va., Lynchburg**—City, school. Approx. $1,000,000. Allen J. Saville, Inc., Law Bldg., Richmond, consult. engrs.

★†**Wash., Bremerton**—Bremerton Housing Auth., Bremerton, 1200 family dwelling units, $2,400,000; 1,424 dormitory units, $1,300,000, for NHA.

†**Wash., Seattle**—U. S. Pub. Health Service, Bethesda Station, Wash. 14, D. C., 150-bed Marine Hospital addn. $150,000.

Alta., Acme—Municipality plans by J. P. Ferguson, Trochu, hospital unit and hall. $150,000.

★**Alta., Edmonton**—City, City Hall, terminal east of Canadian National Ry. Station. $500,000 for first unit.

Alta., Three Hills—Municipality, C. T. Davidson, mayor, hospital, $150,000.

Alta., Vermillion—Municipality, J. J. Part, clk., power plant exten., addnl. equip., and building exten.

Man., Charleswood—Dominion Govt., Ottawa, Ont., plans by Dpt. Veterans Affairs, Daly Bldg., Ottawa, Ont., 31 dwellings, $150,-000.

Man., St. James (Postal Dist. Winnipeg)—Municipality, high school. $150,000.

★**Man., Winnipeg**—Wartime Housing, Ltd., 55 York St., Toronto, Ont., 100 houses. About $450,000-$500,000.

Man., Winnipeg—City, new central mixing plant, $96,000. W. D. Hurst, c/o owner, engr.

Newfoundland, St. Johns—Govt. of Newfoundland, St. Johns, 4 story liquor warehouse, $200,000. Dpt. Works, St. Johns, archt.

N. S., Sydney—City Hospital Comn., Sydney, hospital, $250,000.

Ont., Galt—City, R. K. Serviss, mayor, City Hall, 100 houses. $400,000. Wartime Housing, Ltd., 55 York St., Toronto, engrs.

Ont., Haileybury—Bd. Educ., Haileybury, making plans by high school, $150,000.

Ont., Hamilton—Bd. Educ., Hamilton, plans by G. T. Evans, 511 Pigott Bldg., 1 story, 119 x 207 ft., rein.-con., brick, tile school, Queensdale Ave. Over $150,000.

Ont., Hamilton Beach — Municipality, school. $150,000. Burlington Beach Comn. 1147 Beach Blvd., engr.

Ont., London—City Council, plans by T. C. McBride, City Hall, central fire hall and elimination for 3 small halls, $150,000-$200,-000.

Ont., New Liskeard—New Liskeard Public School Bd., plans by R. Brisley, Whitewood Ave., 12 room, brick, tile school addn., gymnasium and auditorium. $160,000.

Ont., New Liskeard—New Liskeard Hospital Bd., plans by R. Brisley, Whitewood Ave., brick, tile hospital, concrete fdn. $175,-000.

Ont., Oakville—Town, high school. $160,-000.

Ont., Port Colborne—Port Colborne Memorial Hospital Bd., R. S. Misener, chn., plans by C. C. Woods, 12 Richmond St. E., Toronto, 50-bed hospital, west end of Memorial Park. $175,000. CD 1/12/44—ENR 1/20/44.

Ont., Toronto—Bd. Educ., C. H. R. Fuller, administrator, 155 College St., Bloor Collegiate addn., providing assembly hall and gymnasium. $170,000.

Ont., Windsor—Wartime Housing, Ltd., 55 York St., Toronto, 100 addnl. houses in South Windsor. $400,000.

★**Que., Hull**—Wartime Housing, Ltd., 55 York St., Toronto, Ont., addnl. 200 houses. $800,000.

Sask., Regina—Wartime Housing, Ltd., 55 York St., Toronto, Ont., 100 houses. About $450,000. CD 5/4—ENR 5/15.

Sask., Saskatoon—Collegiate Bd., c/o Prof. E. A. Hardy, Saskatoon, 3 story, 60x173 ft. Technical Collegiate addn. $160,000.

Sask., Saskatoon — Governors St. Paul's Hospital, Saskatoon, 100 bed hospital, $250,-000.

BIDS ASKED

Bids Asked May 29

N. Y., Brooklyn—New York City Housing Auth., 122 E. 42 St., New York, Zone 17, altering stores into apartments at Williamsburg Houses, H-1301. Plans deposit $10.

Bids Asked May 30

†**Tenn., Kingsport**—U. S. Eng., Post Office Bldg., Savannah, Ga., sodium acetate mfg. plant Bldg. B8B, Plant B, Holston Ordnance Works, Ser. HO-7-45.

★**Ont., Toronto**—Dpt. Veterans Affairs, 21 Lombard St., 244 houses for veterans in North Twp. about $1,200,000; 106 houses for veterans in Scarborough Twp., about $500,000. Plans deposit $50 each.

Bids Asked May 31

Ont., Sault Ste. Marie—Dist. Supt. Veterans Land Act, 21 Lombard St., Toronto, 30 houses in Korah Twp., Algoma Dist. Plans deposit $50. About $165,000.

Bids Asked About June 1

★**La., Jackson**—East Louisiana State Hospital, c/o Bd. Directors, Baton Rouge, hospital bldg. housing 210 patients, $225,000; hospital bldg. housing 80 patients, $150,000; hospital bldg. housing 320 patients, $360,000; hospital bldg. housing 230 patients, $275,000. E. F. Neild, City Bank Bldg., Shreveport, archt. CD 2/21—ENR 3/8, under Postwar Projects.

Bids Asked June 4

Calif., Fairfield—Solano Co., L. Morrill, clk., Courthouse, 3 story, rein.-con. jail addn. with cell blocks on 2 floors. $180,000. Plans deposit $25. from architect. H. J. Devine, Cronan Bldg., Sacramento, archt. CD 12/12—ENR 12/14.

Bids Asked June 6

★†**Ill., Chicago**—Chicago Housing Auth., 343 S. Dearborn St., forty 2 and 3 story, brick bldgs. for housing, incl. power house and community bldg., Ill. 2-8, bounded by 37, 39, Princeton and Wentworth Sts. Plans deposit $100. Loebl & Schlossman, 333 N. Michigan Ave., archts.

★**Que., Montreal West**—Secy. Dpt. P. Wks., Ottawa, Ont., main bldg., Currie Hospital. $2,500,000-$3,000,000. Plans deposit $200. C. D. Sutherland, c/o Dpt. P. Wks., Ottawa, Ont., archt.

Bids Asked June 7

†**Neb., Grand Island**—Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, Ill., 100 family stop-gap dwelling units, Neb. 25093. Davis & Wilson, 757 Stuart Bldg., Lincoln, archts. CD 5/8—ENR 5/10.

Bids Asked July 3

†**Calif., Livermore**—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., ambulant cottages conversion, incl. roads, walks, grading, drainage, excav., etc., Proj. 2209.

Bids Asked

†**Mass., Waltham**—U. S. Eng., 31 St. James Ave., Boston, Zone 16, (selected bidders), service bldg. No., 19-023-45-Neg-131. $25,000.

LOW BIDDERS

†**Calif., Los Angeles**—City, Bd. P. Wks., City Hall, May 16, 1 story, bamnt., rein.-con. Southeast Health Center, Avalon Blvd. and 49 St., Calif. 4-625-N, from Pozzo Constr. Co., 2403 Riverside Dr., **$219,729. FWA.** CD 5/3.

†**Calif., San Bernardino**—U. S. Eng., 751 S. Figuero St., Los Angeles, Zone 55, May 15, bomb facilities, incl. warehouses and railway constr. No. 304, from H. B. Nicholson, 1151 S. Broadway, Los Angeles. **$41,251.**

D. C., Wash.—District Comrs., District Bldg., May 15, school, Stanton Rd. and Alabama Ave. S.E., from Cramer-Vollmerhausen Co., 2601 Connecticut Ave. N.W., Wash. 25, D. C., **$262,400.** CD 5/9.

†**Fla., Pensacola**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., May 8, sewerage treatment plant and lines for housing Fla. 8219, near here, from Dyson & Co., Pensacola, base bid **$54,000,** Alt. 2 **$54,125.** CD 4/24—ENR 4/26.

†**Md., Aberdeen**—U. S. Eng., Standard Oil Bldg., Baltimore, Zone 2, controlled temperature magazine and pendulum house, from F. J. Brotherton, 185 Atlantic St., Hackensack, N. J., **$242,600.** CD 5/15—ENR 5/17.

★†**N. J., Newark**—Newark Housing Auth., 67 Sussex St., May 15, Boulevard Homes, 275 family dwelling units, N. J. 2-9, for NHA, from Rubin Constr. Corp., 11 W. 42 St., New York, Zone 18, **$1,158,690.** CD 4/30—ENR 5/3.

†**O., Chillicothe** — Veteran's Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, May 15, Storehouse Bldg. 23, Pro. 2072, from Nardia Constr. Co., 403 Seneca Ave., Mount Vernon, N. Y., **$54,837.** CD 4/5—ENR 4/12.

†**Tex., Fort Sam Houston**—U. S. Eng., Fort Sam Houston, special service club for Brooke General Hospital, Ser. W-41-154-45-127, from E. H. Conrad, 150 Simpson St., San Antonio, **$103,567.**

†**Tex., Longview**—U. S. Eng., 231 W. Main St., Denison, orthopedic brace shop, library and facilities at Harmon General Hospital, Ser. 4-066-45-43, from Owens & Birdson, Longview, approx. **$121,000.**

CONTRACTS AWARDED

†**Idaho, Pocatello**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., replacing interior columns with structural steel, N.O.P., NOY 11975, to J. A. Terteling & Sons, Inc., Brennan & Cahoon, P.O. Box 208, **$89,821.**

★†**Ind., Crane**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., smokeless powder magazines, Naval Ammunition Depot, NOY 11995, to Maxon Constr. Co., 131 N. Ludlow St., Dayton, O., **$1,300,500.** CD 3/14.

★†**Ind., Crane**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., inert storage bldg., fuse and detonation magazines, at Naval Ammunition Depot, NOY 11996, to Johnson, Drake & Piper, Inc., 86 Trinity Pl., New York 6, N. Y., **$1,355,000.** Bids 3/30. CD 3/21.

†**Md., Forest Glen**—U. S. Eng., First and Douglas Sts. N.W., Wash. 25, D. C., shop space, addnl. classroom, Walter Reed General Hospital, Contr. W-49-080-eng-262, to Walter B. Avery, 629 F St. N.W., Wash., D. C., **$60,873.**

†**Md., White Oak**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., ammunition group and magazines and surveyance laboratory, N.O.L., NOY 11810, to J. D. Hedin Constr. Co., 820 Michigan Ave. N.E., Wash., D. C. **$107,000.** CD 4/26.

†**Mass., Fort Devens**—U. S. Eng., 31 St. James Ave., Boston, Zone 16, orientation bldg., No. 19-023-45-Neg-134, to E. Turgeon, 614 Turks Head Bldg., Providence, R. I., **$64,194.** CD 5/21.

†**N. M., Gallup**—U. S. Eng., P. O. Box 1538, Albuquerque, addnl. storage bldg. at Fork Wingate Ordnance Depot, to C. H. Leavell, El Paso, Tex., **$294,824.**

★†**N. D., Fargo**—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., addnl. bldgs., facilities, etc., Proj. 2266, to Hagstrom Constr. Co., 490 Snelling Ave. N., St. Paul, Minn., **$1,719,800.** CD 4/25—ENR 5/3 under LB.

†**O., Ashtabula**—Lake City Malleable, Inc., Ashtabula, service bldg., to The Cleveland Constr. Co., 2866 Carnegie St., Cleveland, **$100,000** or more. Awarded 5/10. Defense Plant Corp. will finance. J. A. Green, c/o owner, engr. CD 2/13—ENR 2/15.

†**Tex., Fort Sam Houston**—U. S. Eng., Fort Sam Houston, Personnel Center housing, Dodd Military Field, to F. A. Nunnelly, 118 Delaware, San Antonio, **$131,797.** CD 5/16.

★†**Tex., Odessa**—United Carbon Co., United Carbon Bldg., Charlestown, W. Va., design and construction carbon black plant, to Ford, Bacon & Davis, 39 Bway., New York, N. Y., **$5,000,000.** Defense Plant Corp. will finance. CD 3/28—ENR 4/5.

†**Utah, St. John** — Pub. Housing Auth., NHA, 760 Market St., San Francisco, Calif., 75 temporary family dwelling units, Utah 42203, to C. B. Lauch, Ogden, **$191,374.** Bids 5/8. CD 4/24—ENR 4/26.

PUBLIC BLDGS. (Contracts Awarded, Cont'd)

★**†Wash., American Lake** — Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., 2 story, bsmnt., rein.-con. infirmary addn., 1 story, brick storehouse addn., 4 story, rein.-con. bldg., 2 story, bsmnt., rein.-con. acute bldg., 2 story, bsmnt. bldg., for women patients, to MacDonald Bldg. Co., 1517 S. Tacoma Way, Tacoma, **$2,059,827.** Bids 5/8. CD 5/10—ENR 5/17.

★**†Wash., Bangor**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., addnl. magazines, exclusive of clearing site, Naval Magazine, Spec. 16223, NOY 11956, to Sound-Klewit Constr. Co., 1121 W. 45 St., Seattle, **$2,733,556.** CD 5/11.

†Wash., Spokane—U. S. Eng., 1400 Textile Tower Bldg., Seattle, Zone 1, sealing, painting enclosed walkways and nurses quarters at Baxter General Hospital, Neg. 1132, to R. L. Bair, 1200 Ide St., **$45,284.** Bids 5/9.

†Alaska, Fairbanks—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union Sts., Seattle 1, Wash., 50 family dwelling units, in 2 story, frame bldgs., with central heating plant, Alaska 50082, to Lytle & Green Constr. Co., 307 Masonic Temple Bldg., Des Moines, Ia., **$321,000.** Bid call for May 22 cancelled. CD 5/8—ENR 5/10.

COMMERCIAL BUILDINGS

PROPOSED WORK

Calif., Long Beach—M. Taper, c/o H. Gibbs, archt., 441 E. 1 St., 55 frame, stucco single family dwellings, $225,000.

Conn., Bristol—J. T. Donovan, 4 School St., brick, steel theatre, Farmington Ave. $150,000.

N. Y., New York—New York Telephone Co., 140 West St., Zone 17, soon lets contract altering telephone bldg., 1775 Grand Concourse.

Va., Newport News—Newport News Shipbuilding & Dry Dock Co., Newport News, plans by Baskerville & Son, Central National Bank Bldg., Richmond, steel, frame, concrete clinic and hospital bldg.

Atla., Calgary—Holy Cross Hospital Bd., 23 Ave., nurses home. $150,000. Site purchased.

Man., Winnipeg—St. Matthews Anglican Parish, c/o Dr. H. M. Speechly, Maryland St. and St. Matthews Ave., church. $150,000.

Man., Winnipeg—United College Bd., 28 Portage Ave., library and divinity college bldg., Spence St. $160,000.

N. B., Saint John—**F. W. Woolworth Co.** Ltd., R. D. Campbell, asst. genl. mgr. of Canada, 357 Bay St., Toronto, Ont., 4 story, bsmnt., 100x120 ft., granite base, steel, concrete store, King and Charlotte Sts. $250,000.

Newfoundland, St. Johns—United Towns Electric Co., Ltd., St. Johns, 4 story, office, etc. bldg. $150,000.

Ont., Cornwall—Y.M.C.A., Cornwall, plans Y.M.C.A. bldg. About $175,000.

Ont., Owen Sound—Marine Hospital Bd., Owen Sound, plans by Craig & Madill, 62 E. Charles St., Toronto, hospital. $150,000.

Que., Chicoutimi—Seminaire de Chicoutimi, Rev. Can. P. Morel, Superior, plans by L. Desgagne, 100 Jacques Cartier St., Lamontagne & Gravel, Racine St., Chicoutimi and S. Brassard, 39 Moncton Ave., Quebec City, chapel and hall, at Seminary, Jacques Cartier St., $200,000. CD 4/23—ENR 4/26.

Ont., Peterboro—Workers Educational Assn. (Peterboro) Credit Union, Ltd., A. E. Borland, chn., 744 George St., 75-100 houses. About $300,000-$400,000.

BIDS ASKED

Bids Asked May 29

Me., Houlton—Ricker Classical Institute, High St., superstructure for 3 story, bsmnt., 61x145 ft., concrete, brick arts and science bldg., Wording Hall, $150,000. A. J. Harriman, 88 Shepley St., Auburn, archts. CD 5/10—ENR 5/17.

Ill., Chicago—Lake Homes Inc., c/o W. R. Goss Co., 435 N. Michigan Ave., sub-contracts, 73 one story, 5 room, brick residences, Avenues A, B, C, D, E and F, between 111 and 112 Sts. R. P. Boehm, 10549 S. Talman Ave., archt.

CONTRACTS AWARDED

Calif., Downey—Biltmore Homes, 1211 W. Wardlow Rd., Long Beach, 69 single family frame, stucco dwellings, Tract No. 13240. Owner builds, **$350,000.** H. Gibbs, 441 E. 1 St., Long Beach, archt. CD 3/12—ENR 3/15.

Calif., Long Beach—Biltmore Homes, 1211 W. Wardlow Rd., 86 single family frame, stucco dwellings, various locations. Owner builds. **$430,000.** H. Gibbs, 441 E. 1 St., archt.

Conn., Bridgeport—Hungarian Reformed Church, 641 Hancock Ave., 1 story church, 2 story, bsmnt. school and parish house, to E. F. Constr. Co., 94 Wells St. Est. **$200,000.** P. P. Petrofsky, 177 State St., archt. CD 6/29—ENR 7/13, under Postwar Projects.

Conn., Newington—Newington Home for Crippled Children, Cedar St., brick, steel surgical and isolation hospital wing, Constance Leigh Unit, to Southern New England Contg. Co., Inc., 242 Trumbull St., Hartford. Est. **$150,000.** Ebbets & Frid, 15 Lewis St., Hartford, archts. CD 4/25—ENR 5/3.

★**O., Akron**—Westgate Manor Co., E. Lotery, pres., 80 Maiden Lane, New York, N. Y., twenty-two 2 story garden type apartments, on 50 acre site, W. Market St. and Hawkins Ave., to Psaty & Fuhrman, Inc., 369 Lexington Ave., New York, N. Y., **$2,250,000.** CD 6/14—ENR 6/22.

R. I., Warwick—E. Leslie Archibald, 192 Summer St., Cranston, 25 two story, bsmnt., frame residences, Hoxie Sect., Westshore. Owner builds. **$150,000.** Work started.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Ark., Blytheville—PLANT—Southern Mfg. Co., Blytheville, A. A. Mauley, pres., factory plant. $50,000.

Ark., Jonesboro—PLANT—Hargrove Industries, Inc., Jonesboro, soybean crushing plant and cotton seed oil mill. $150,000.

Colo., Denver — PLANT — E. G. Groves, archt., Temple Court Bldg., soon lets general contract 1 and 2 story, 60x100 ft. and 56x60 ft., L-shaped, steel frame, cinder block, glass bottle mfg. plant, for Denver Glass Bottle Co., 3557 Wazel St., $75,000-$100,000.

Colo., Denver—FREIGHT TERMINAL—Pacific Intermountain Express, 10 and Galapago Sts., plans 1 story, 75x306 ft., brick, concrete freight terminal bldg., incl. dock, 48x60 ft. shop bldg. $160,000.

Conn., Bristol—STORAGE—New Departure Div. General Motors Corp., 269 N. Main St., soon lets contract brick, steel storage unit. Over $40,000. Albert Kahn, Associated Architects & Engineers Inc., 345 New Center Bldg., Detroit 2, Mich. engrs.

Conn., Greenwich—STORAGE—New York, New Haven & Hartford R.R. Co., E. E. Oviatt, ch. engr., 71 Meadows St., New Haven, Zone 6, soon lets contract storage bldg.

Conn., New Haven—TRUCK TERMINAL—Rapid Motor Lines, 240 Putnam St., preparing plans 1 story, 100x150 ft., concrete, steel truck terminal, incl. repair shop. $70,000. L. F. Caproni, 1221 Chapel St., engr.

Conn., Plainfield—FACTORY—Plastic Film Corp., c/o architect, plans L. F. Caproni, 1221 Chapel St., New Haven, 1 story, 42x200 ft., brick, steel, concrete factory addn., 4 rein.-con. silos, 30x100 ft. platform. $45,000.

Conn., West Haven (br. New Haven)—FACTORY—New England Die Casting Co., 54 Grant St., plans by L. Asheim, 211 State St., Bridgeport, 1 story, 50x200 ft., brick, steel, cinder blocks factory, Front St. $40,000.

Idaho, Kellogg—MILLING PLANT—Sidney Mining Co., Idaho First Natl. Bank Bldg., milling plant. $200,000. (Correction-owner). CD 5/4—ENR 5/10, giving Bunker Hill Sullivan Mining & Concentration Co., as owners.

Ill., Chicago—FACTORY—Columbia Pipe & Supply, 3610 S. Morgan St., soon lets contract 1 story, brick, steel frame factory. A. Epstein, 2001 W. Pershing Rd., engr.

Mass., Marlboro—GARAGE, etc.—At office B. Brown, engr., 45 Franklin St., Boston, soon lets contract 1 story, 55x155 ft., brick, concrete block bus garage, Howe St., to exceed $40,000 with equip.; 1 story, 48x101 ft., brick, concrete block bus terminal, concrete fdn., Main St., to exceed $40,000 with equip., for B & W Lines, Worcester Rd., Framingham Center.

Mass., Indian Orchard—FACTORY—Nixon Specialty Co., 36 Berkshire St., revised plans by E. P. Dorgan, 833 Chestnut St., Springfield, 1 story, 40x50 ft., 50x122 ft., brick, concrete factory, Berkshire St. Former bids rejected. CD 3/27—ENR 3/29.

Mich., Wyandotte—LABORATORY, etc.—Wyandotte Chemicals Corp., Biddle Ave., plans by H. F. Stanton, 409 Griswold St., Detroit, 2 story, brick, steel, rein.-con. laboratory and office. $150,000. George Wagschall Assoc., 1131 Majestic Bldg., Detroit, engrs.

Mo., St. Louis—PLANING MILL, etc.—Ganahl Lumber Co., Boyle and Duncan Aves., planing mill and large lumber shed, etc. on 320x332 ft. site, Boyle and Duncan Aves. Over $60,000 with equip.

N. H., Tilton—FACTORY—Gibson Mills, Inc., c/o N. H. Randlett, archt., 614 Main St., Laconia, 1 story, brick factory. $40,000.

N. Y., Brooklyn—GENERATOR HOUSE—Brooklyn Union Gas Co., 176 Remsen St., soon lets contract generator house at Greenpoint Works. United Engineers & Constructors, 1401 Arch St., Phila., Pa., archts. CD 5/1—ENR 5/10.

N. Y., New York—WAREHOUSE—Baltimore & Ohio R.R. Sys., A. C. Clark, ch. engr., Baltimore and Charles Sts., Baltimore 1, Md., soon lets contract warehouse addn., 13 Ave. and 26 St.

N. D., Hillsboro—PLANT—Traill County Farmers Union-Produce Ass'n., E. L. Anderson, mgr., Millsboro, poultry processing plant. $50,000.

O., Barberton—FACTORY—Sun Rubber Co., 9 Fairview Ave., soon lets contract rebuilding 1 and 2 story, 100x200 ft., factory. $50,000. Firestone & Cassidy, 175 Bowery St., Akron, Archts. CD 11/7—ENR 11/9.

★**O., Ironton**—PLANT—Allied Chemical & Dye Corp., S. Third Ave., phthalic anhydride plant and installing equip., $997,650. M. P. Taylor, Barrett Div., Allied Chemical & Dye Co., 61 Bway., New York, N. Y., ch. engr.

★**O., McConnelsville** — FACTORY — Cambridge Tool Corp., W. J. Blazier, vice-pres., c/o Lempco Products, Inc., 5400 Dunham Rd., Bedford, 1 story, brick, steel factory. $750,000.

Ore., Linslaw—SAWMILL—Austa Lumber Co., Linslaw, rebuilding sawmill. $70,000.

Ore., Portland—PLANT—Pacific Supply Corp., Chemical Div., 801 S.E. Division Pl., fertilizer processing bldg., 19 and Upshur Sts. $83,877.

Pa., Phila.—GARAGE, etc.—Mack Frazier, 2417 W. Montgomery Ave., making plans garage and repair bldg. $40,000.

R. I., Providence—FACTORY—Harold Anderson, 36 Garnet St., plans nearing completion by E. O. Ekman, 1016 Turks Head Bldg., 2 story, 46x93 ft., brick factory, concrete fdn. To exceed $40,000 with equip.

★**S. C., Charleston** — POWER PLANT—South Carolina Power Co., 141 Meeting St., steam power plant. $2,500,000.

Tex., Brownsville—SHOP—Pan-American World Airways, Brownsville, motor overhaul shop. $75,000.

Tex., Dallas—LAUNDRY—Texas Coverall Service Co., Rubin and Zimmer Sts., plans by F. J. Woerner & Co., 99 Clairmont St., brick, concrete, steel laundry plant. $40,000.

Tex., Galveston—PLANT—North American Compress & Warehouse Co., Cotton Exchange Bldg., cotton compress and storage plant. Over $50,000.

Tex., Houston—PLANT—Bama Pie Co., 5903 Washington St., 2 story, 45x103 ft. pie plant, brick, concrete. $75,000.

Tex., Houston—PLANT—Oliveros Mfg. Co., 7800 Lawndale St., 2 story game caller mfg. plant. $40,000. T. B. Jorgensen, Cit. State Bank Bldg., engr.

Tex., Houston—WAREHOUSE—Otis Massey Co., 201 Hutchins St., 100x100 ft. warehouse unit. $40,000.

Tex., Houston—SHOP—G. H. Stubblefield, Cit. State Bank Bldg., 68x280 ft., shop, $80,000; combination storage and shop bldg., incl. 300 ft. loading conveyor, $47,000. Basen Steel Works, lessee.

Tex., Weslaco—PLANT—Valley Grande Academy, 1020 Missouri St., 1 story, metal, concrete, etc. packing plant. $40,000.

Vt., Montpelier—PLANT—Montpelier Coop. Freeze Lockers, Montpelier, revised plans by Payson & Webber, Grove St., Rutland, quick frozen foods plant. $40,000. Bids 4/20 rejected. CD 4/17—ENR 4/19.

Wis., Watertown—FACTORY—I. L. Henry Co., 702 Elm St., New York, N. Y., plans by Law, Law, Potter & Nystrom, 121 S. Pinckney St., Madison, rebuilding 2 story, bsmnt., 50x150 ft., brick, steel, concrete block factory.

Alta., Edmonton — WAREHOUSE — Independent Wholesale Corp., Ltd., Edmonton, warehouse. About $40,000.

B. C., Port Alice—PLANT—B. C. Pulp & Paper Co., Ltd., Port Alice, chipmaking and storage plant. $100,000.

B. C., Vancouver—WAREHOUSE—Andrew Sheret Properties, Ltd., 114 Blanshard St., concrete warehouse.

B. C., Vancouver—MILL—Bralorne Mines Ltd., 555 Burrard St., enlarging mill from 500 tons to 750 tons per day capacity, improvs. $60,000.

Man., Winnipeg—PLANT—Powell Equipment Co. Ltd., 1060 Arlington St., plans by E. Prain, 511 Confederation Life Bldg., plant addn., Arlington St. $100,000.

N. S., Halifax—PLANT—H. Long, 167 Arghle St., dry cleaning plant. About $45,000.

N. S., New Glasgow—PLANT—Eastern Chronicle Inc., New Glasgow, printing and newspaper publishing plant, $45,000.

Ont., Barrie—SHOP—G. Montgomery, 70 Elizabeth St., machine shop. $40,000.

Ont., Caledonia—PLANT—Canadian Gypsum Co. Ltd., 170 Bloor St. W., Toronto, plans by Page & Steele, 20 St. Clair Ave. W., Toronto, 64x320 ft., gypsum block and steel mfg. plant. $90,000.

Ont., Hamilton—STORAGE—Canadian Industries, Ltd., Box 10, Montreal, Que., 66 ft. addn. to each end bulk storage bldg. to fertilizer division. $49,300. I. R. Tait, c/o owner, engr.

Ont., Hamilton—BREWERY—Peller Co. Ltd., c/o Peller Machine Industries, Ltd., 49 Niagara St., Toronto, plans by McDonnell & Lenz, 42 James St. N., 3 story, 110x230 ft., rein.-con., stone brewery, near Eastwood Park. $225,000. CD 3/28—ENR 4/5.

Ont., Kitchener—FACTORY—Ball Brothers Ltd., 49 King St. E., revising plans factory, Victoria St. $40,000.

Ont., Lakefield—PLANT—Lakefield Boat & Mfg. Co., Lakefield, plant mfg. canoes, etc. $40,000.

Ont., Lindsay—PLANT—Page & Steele, archts. 20 St. Clair Ave. W., Toronto, soon let contract 1 story, 140x170 ft., brick, steel plant concrete fdn. for A. Bradshaw & Sons Ltd., 507 College St., Toronto. $175,000.

NDUSTRIAL BLDGS. (Proposed Work nt'd.)

Ont., St. Catherines—PLANT—Peninsula ress Ltd., St. Catherines, printing, engrav- g, lithographic, etc. plant.

Ont., St. Thomas — COLD STORAGE OCKER—Crystal Ice & Cold Storage Co. d., St. Thomas, plans by V. J. Blackwell, Dundas St., London, 2 story, bsmnt., x140 ft., rein.-con., cold storage locker ant, Gravel Rd. $100,000.

Ont., Toronto—FACTORY—British Drug ouse (Canada), Ltd., Terminal Warehouse ldg., plans by G. M. West, 43 Victoria St., ck, steel factory, $75,000.

Ont., Toronto—PLANT—Canadian General ectric Co., 212 King St., W. plant addn. for fg. resins, $350,000.

Ont., Toronto—FACTORY—Fine Chemicals Canada, Ltd., 587 Fleet St., plans by N. A. rmstrong, 19 Melinda St., factory, Phar- acy Ave. $90,000.

Ont., Toronto—FACTORY—Frolic Indus- ies, Ltd., c/o John Stuart McKinnon, K.C., St. George St., woodworking factory. 0,000.

Ont., Toronto—PLANT—Huron Chemical , Ltd., % J. P. Arnott, K. C., 320 Bay St., ant mfg. waxes, oils, fats, etc. $40,000.

Ont., Toronto—PLANT—Sunnybrook Pack- s Ltd., c/o R. Bigelow, Temple Bldg., eat packing plant. $40,000.

Ont., Toronto—FACTORY—Victor Engr. , Ltd., 150 Munro Park Ave., 2 story, x50 ft., brick, concrete factory, 1 story, x65 ft., exten. in rear. $45,000.

Que., Valleyfield—FACTORY—Merck & , Ltd., 560 de Courcelles St., Montreal, ctory. About $50,000. T. Pringle & Son, d., 485 McGill St., Montreal, factory. bout $50,000. CD 12/28—ENR 1/4.

Ont., Virginiatown—SHAFT SINKING—rmistice Gold Mines, Ltd., 10 W. Adelaide t., Toronto, shaft sinking and underground velopment, $100,000.

Ont., Wallaceburg — PLANT — Ben Iron oundry Ltd., Wallaceburg, plant mfg. cast- gs, etc. $50,000.

Que., Grand'Mere—FACTORY—Frontenac oodworks Ltd., Grand'Mere, plans by M. awley, c/o owner, factory. $40,000.

Que., Kewagama—DIAMOND DRILLING—ger Gold Mines Ltd., Kewagama, diamond illing. $150,000. J. P. Norrie, Amos, engr.

Que., Montreal—FACTORY—Lyman Agen- es, Ltd., 286 W. St. Paul St., plans by uke & Little, 1400 Guy St., factory. $40,000. D 2/7.

Que., Mount Royal (Postal Dist. Montreal) —PLANT—White Co. Ltd., 5225 De Gaspe , Montreal, plans by Ross & MacDonald, 10 Ste. Catherine St., Montreal, assembly nt. $50,000.

IDS ASKED

Bids Asked About June 1

N. C., Norwood—FACTORY—Collins & kman Corp., 51 St. and Parkside Ave., lla., Pa., factory addn. $125,000. CD 4/4— NR 4/12.

Ill., Chicago—FACTORY—A. J. Boynton & , engrs., 310 S. Michigan Ave., 1 story, 0x400 ft., brick, concrete, steel factory ddn., for Ingersoll Steel & Disc Div., of org Warner Corp., 310 S. Michigan Ave.

La., Baton Rouge—BOOSTER STATIONS, r.—Interstate Oil Pipeline Corp., N.B. dg., 3 booster or pump. stations. Each er $75,000. CD 5/9—ENR 5/17.

O., Archbold—PLANT—King-Wise Mfg. , Archbold, 2 story, 100x200 ft., steel ructure, farm implement mfg. plant. $200,- 0. Britsch & Munger, Nicholas Bldg., oledo, archts. CD 8/4—ENR 8/10.

Pa., Phila.—PLANT—Service Supply Corp., and Venango Sts., rebuilding mfg. plant. 00,000-$150,000. CD 3/27—ENR 3/29.

ONTRACTS AWARDED

Calif., Oakland — WAREHOUSE — Gerber oducts Co., 801 98 Ave., 1 story, concrete arehouse, to C. H. Thrams, 1100 6 Ave. t. $66,000.

Ill., Chicago—FORGE PLANT—Cornell rge Co., 1659 W. 74 St., 1 story, brick con- ete, steel forge plant, 6666 W. 66 St., to earing Industrial District, 6455 S. Central ve., $200,000. J. S. Cromlin, 6455 S. Central ve., archt.

Mass., Brighton (Sta. Boston)—SHOP—arvard University, 151 Western Ave., 1 ory, 30x86 ft., concrete, brick shop, 151 estern Ave., to George A. Fuller Co., 11 eacon St., Boston, approx. $40,000. Cool- ge, Shepley, Bulfinch & Abbott, 1 Court Boston, archts.

Mass., Pittsfield—PLANT—General Elec- ic Co., 1 Plastics Ave., 1 story, concrete el plastics plants incl. laboratory, machine op, to E. J. Cramer, 28 North St. Est. 0,000. Bids 5/10. CD 5/7—ENR 5/10.

Mich., Flint—FACTORY—General Motors uick Motor Div., General Motors Bldg., etroit, 1 story, 186x1066 ft. brick, concrete el Factory Bldg. 16, to Thorgersen & ickson, 228 N. La Salle St., Chicago, Ill. lbert Kahn Associated Architects and Engi- ers, Inc., 345 New Center Bldg., Detroit, ne 2, archts.

Mo., St. Louis—FACTORY—E. C. Brendecke, 3035 Washington Ave., Zone 3, 1 story, 65x115 ft., brick factory and repair shop concrete fdn., 3035 Washington Ave., to Geo. L. Cousins Contg. Co., 875 North Skinker Blvd., Zone 12. Est. **$40,000** with equip. Study, Farrar & Majers, Arcade Bldg., 806 Olive St., Zone 1, archts.

N. H., Laconia—FACTORY—Belknap Mills Corp., 37 Mill St., 2 story, brick, mill addn. to factory, Mill St., to Guay & Tardiff Co., 90 Winter St. Est. **$40,000.** CD 5/9-ENR 5/17.

N. J., Salem—WAREHOUSE—H. J. Heinz Co., 1062 Progress St., Pittsburgh, Pa., warehouse, to Hughes-Foulkrod Co., 1505 Race St., Phila., Pa., **$220,000.** Bids 4/27, awarded 5/10. CD 4/26—ENR 5/10.

★**N. Y., New York**—PLANT—Dairymen's League Co-Operative, Inc., 11 W. 42 St., Zone 18, 4 story, bsmnt. milk pasteurizing and bottling plant and 2 story garage, 12 Ave. between 47 and 48 Sts., to Cauldwell Wingate Co., 101 Park Ave., Zone 17. Est. **$550,000.** CD 4/2—ENR 4/5.

O., Columbus—FOUNDRY—Jaeger Machine Co., 550 W. Spring St., 1 story, bsmnt., 132x278 ft., concrete block, foundry, to Robert W. Setterlin & Son, 1030 S. Third Ave., **$80,000.** A. Lyman, c/o owner, archt.

O., Findlay—PLANT—Master Tire & Rubber Co., J. F. Schaefer, pres., Lima and Western Aves., design and construction 1 story, 100x340 ft. truck tire plant, to The Austin Co., 16112 Euclid Ave., Cleveland. Est. **$180,000.** CD 4/27—ENR 5/3.

Ore., Wasco—GRAIN ELEVATOR—Sherman Cooperative Grain Growers, Wasco, 220,000 bu. grain elevator addn., to Hogenson Constr. Co., 402 Corn Exchange, Minneapolis, Minn. Est. **$84,400.**

Pa., Port Alleghany—PLANT—Pittsburgh Corning Corp., Port Alleghany, design and construction plant addn. for producing foamglass, to John W. Cowper Co., Inc., Sidway Bldg., Buffalo, N. Y. Approx. **$100,000.** CD 12/6-ENR 12/14.

S. C., North Charleston—PLANT—Socony-Vacuum Oil Co., Inc., 26 Bway., New York, N. Y., bulk storage plant for petroleum products, own forces, **$50,000.**

Tex., Houston — WAREHOUSE — A. P. Simons, Ross and Magnolia Sts., 1 story, bsmnt. warehouse. Owner builds. **$50,000.** L. E. O'Banion, c/o owner, archt. CD 5/11—ENR 5/17.

Tex., McAllen—PLANT—Brido Christensen, c/o Rio Sun Co., 2422 Highway, McAllen, 1 story, 130x250 ft., rein.-con., brick, steel processing plant, to Mitchell Darby, 1104 Laurel St., approx. **$50,000.** CD 5/2—ENR 5/10.

Vt., Burlington—FACTORY—G. S. Blodgett Co., Inc., 192 Bank St., 1 story, 100x200 ft., brick, steel factory, Lakeside Ave., to C. A. Condon, 319 S. Union St., **$96,750.**

Alta., Calgary—BAKERY—Palace Bakery Ltd., N. Libni, owner, 8 Ave., baking plant, 8 Ave., to McTavish, McKay Co. Ltd., 1013 8 Ave. W., about **$90,000.** C. S. Comber, 1502 St. Catherine St. W., Montreal, Que., archt. CD 2/9—ENR 2/15.

Ont., Brantford—PLANT—James, Proctor & Redfern, Ltd., engrs., Excelsior Life Bldg., Toronto, plant exten., for S. C. Johnston & Son, Ltd., Frank St., to Schultz Const. Co. Ltd., 45 Albion St., about **$100,000.** CD 4/17 —ENR 4/19.

★**Que., Baie Comeau** — MILL — Quebec North Shore Paper Co., Ltd., Baie Comeau, and 680 Sherbrooke St. W., Montreal, mill addn., to Foundation Co. of Canada, Ltd., 1538 Sherbrooke St. W., Montreal, **$600,000.** CD 2/8—ENR 2/15.

Que., Limoilou (Postal Dist. Quebec City) —MILL ALTERATIONS — Anglo-Canadian Pulp & Paper Mills, Ltd., Limoilou, structural alterations and installing equip., own forces. **$185,000.**

Que., Montreal — PLANT — Chesebrough Mfg. Co., Ltd., 5520 Chabot St., factory, to W. G. Hunt & Co., Ltd., 1405 Bishop St. **$122,000.** Luke & Little, 1410 Guy St., archts. CD 2/9—ENR 2/15.

UNCLASSIFIED

PROPOSED WORK

★**†Calif., Merced**—AIRFIELD RUNWAY, etc.—U. S. Eng., 1209 8 St., Sacramento, Zone 8, runway with necessary taxiways and warm-up pads, parking apron, installing high intensity approach runway and taxiway lights, altering hangars and new hangar, incl. paving, utilities, at Army Air Field, $2,245,000.

Calif., San Diego—TRANSMISSION LINE —San Diego Gas & Electric Co., 816 6 Ave., 26.7 mi. electric transmission line, El Cajon to Descanso and 2 mi. distr. line, Pine Valley to Rea Substation, near Laguna, $197,538.

Conn., Middletown—STADIUM—Bd. Educ., 251 Court St., bids soon high school stadium at Wilson High School Field. $24,000. G. F. Lamb, Clover St., archt. CD 4/13—ENR 4/19.

Ga., Columbus—HANGAR—Columbus Airways, Inc., Columbus, soon lets contract, hangar, administration and shop bldgs., Serial No. 4-1-333. E. O. Smith, 11 W. 12 St., archt.

Ind., Bloomington—AIRPORT—E. Burch, N. Third St., airport, near Indiana University at northeast endge of city. $35,000 or more with equip.

Kansas — NATURAL GAS PIPELINE — Northern Natural Gas Co., Aquina Court, Omaha, Neb., 15 mi. 24 in. natural gas loop pipeline from point in Ellsworth Co. to Ottawa Co. $180,000.

†La., Alexandria—SONIC BOMB SCORING TARGETS—U. S. Eng., 300 Little Rock, Ark., rejected bids May 7, sonic bomb scoring targets for Alexandria Army Airfield.

†La., Lake Charles—SONIC BOMB SCORING TARGETS—U. S. Eng., 696 Santa Fe Bldg., Galveston, Tex., rejected bids May 7, sonic bomb scoring targets, Army Air Field, Inv. No. 41-W-243-ENG. 45-MI-21. CD 4/20 ENR 4/26.

Mass., Brimfield—SWIMMING POOL—Springfield Boys' Club, 260 Chestnut St., Springfield, concrete swimming pool. McClintock & Craig, Inc., 458 Bridge St., Springfield, engr.

Minn., Crookston—ELECTRICAL DISTRIBUTION—City, W. L. Kirkwood, mayor, surveys electric distr. sys. $100,000. Toltz, King & Day, 1509 Pioneer Bldg., St. Paul, engrs.

N. H., Portsmouth—COMFORT STATION —City, Dpt. P. Wks., City Hall, plans by Alfred T. Granger Asso., Main St., Hanover, 1 story, brick, comfort station. $25,000.

N. Y., New York—SUBMARINE CABLES—Consolidated Edison Co., 4 Irving Pl., Zone 3, 22 submarine cables under Harlem River.

O., Dover—DAM—City, City Hall, dam across the Tuscarawas River south of Tuscarawas Ave. bridge, $15,000. W. Hartline, City Hall, city engr.

†Okla., Shawnee—AIRPORT—Civil Aeronautics Admin., P. O. Box 1689, Fort Worth 1, Tex., erosion control, seeding, fertilizing, etc., Prop. 4-45-5033. Over $40,000.

Pa., Harrisburg—ROLL CALL SYSTEM—Commonwealth of Pennsylvania, C. M. Woolworth, secy., c/o Dpt. Property & Supplies, installing electric roll call sys. in Capitol Bldg. $75,000 funds appropriated.

R. I., East Providence (br. Providence)—AIRFIELD, etc.—American Aircraft, Inc., Snow Street Motor Mart, 119 Snow St., Providence, plans by O. Di Saia, 703 Gardner Bldg., Providence, airfield, runways, taxistrips, hangar and office bldg., Newport, Narragansett Race Track Sect.

†R. I., Newport — FIRE PROTECTION — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., making plans fire protection, incl. installing sprinkler sys. fire walls, etc., Naval Hospital, Spec. 16723, NOY 12509.

†S. C., Georgetown — RUNWAYS — Civil Aeronautics Admin., 84 Marietta St. N.W., Atlanta, Ga., cancelled bids to have been opened May 4, sealing runways, taxiways and apron at airport, Prop. 25-329. Will readvertise CD 4/25.

Tex., Andrews—OIL PIPELINE CARRIER —Humble Pipe Line Co., Humble Bldg., Houston, 4 mi. 4 in. crude oil pipeline carrier. $25,000.

★**†Tex., Camp Normoyle**—OPEN SHED ENCLOSING—U. S. Eng., Fort Sam Houston, enclosing open sheds, $610,592.

†Tex., Fort Sam Houston—BOWLING ALLEYS—U. S. Eng., Fort Sam Houston, bids soon bowling alleys at Brooke Convalescent Hospital. $140,000.

†Tex., Fort Sam Houston—CALL SYSTEM —U. S. Eng., Fort Sam Houston, bids soon nurses call sys., at Army Airfield Regional Hospital, Aviation Cadet Center, Ser. No. W-41-154-45-148.

†Tex., Fort Sam Houston—FIRE EXIT DOORS AND FIRE CHUTES—U. S. Eng., Fort Sam Houston, installing fire exit doors and fire chutes, Brooke Convalescent Hospital, Ser. W-41-154-45-153.

†Tex., Kelly Field—SPRINKLER SYSTEM —U. S. Eng., Fort Sam Houston, bids soon installing automatic sprinkler sys. in miscellaneous bldgs., Group D, Ser. W-41-154-43-150.

†Tex., Texarkana—TURFING, etc.—U. S. Eng., 231 W. Main St., Denison, turfing, erosion control grounds development, Ser. No. 34-066-45-41. Over $25,000.

Utah—PIPELINE—Utah Oil & Refining Co., Utah Oil Bldg., Salt Lake City, 25 mi. 8 in. loop pipeline between Uintah Junction and Salt Lake City. $80,000.

Wisconsin—ELECTRIC DISTRIBUTION SYSTEM—Vernon Elec. Coop., Westby, N. F. Leifer, mgr., 100 mi. exten. to electric distr. sys., Proj. Wis. 41-Vernon. Wis. Elec. Coop., 303 E. Wilson St., Madison, engr. CD 1/12—ENR 1/18.

Ont., Copper Cliff — DAM — International Nickel Co. of Canada, Ltd., dam at Mozhaboug Lake. About $40,000.

Ont., Crumlin—RUNWAYS—Dpt. Transport, Ottawa, exten. concrete runways at airport. About $25,000.

UNCLASSIFIED (Cont'd.)

BIDS ASKED

Bids Asked June 10

★**Calif., Long Beach**—WHARF IMPROVEMENTS—City Harbor Dpt., 1333 El Embarcadero, 73x2500 ft., reinf.-con. wharf deck, fdns., utilities for 3 future transit sheds, 5½ mi. track, grading, paving, electrical work, reinf. con. retaining walls, etc., at Pier A, Berths 4, 5, 6 and 7. Over $500,000. Plans deposit $35. R. R. Shoemaker, 1333 El Embarcadero, engr. CD 2/14—ENR 2/22.

Bids Asked

†Okla., Shawnee—AIRPORT IMPROVEMENTS—Civil Aeronautics Admin., P.O. Box 1689, Fort Worth 1, Tex., erosion control, seeding, fertilizing, etc. Prop. 4-45-5033. Over $40,000. CD 5/15-ENR 5/24.

†Tex., Waco—RECREATIONAL FACILITIES—U. S. Eng., Fort Sam Houston, outdoor recreational facilities incl. excav., athletic courts, embankments, water lines, etc., for McCloskey General Hospital, Ser. No. W-41-154-45-134.

LOW BIDDERS

†Calif., Alameda—SURFACING—U. S. Eng., 74 New Montgomery St., San Francisco, addnl. surfacing at Alameda Intransit Depot, Spec. 2134, from Lee J. Immel, Box 65, Sta. A, Berkeley, **$135,780.**

†Calif., Menlo Park—SWIMMING POOL—U. S. Eng., 74 New Montgomery St., San Francisco, Zone 19, swimming pool at Dibble General Hospital, Spec. 2089, from Richard Delucchi & Co., 420 San Mateo Ave., San Bruno, **$49,572.**

Calif., San Pedro—SHIPYARD BOILER HOUSE, etc.—Todd Shipyard Corp., P.O. Box 231, May 16 boiler house, installing water, steam, air and gas lines at yard, from Shipyard Constr. Co., 2659 Cherry Ave., Long Beach, **$160,000.** J. H. Davies, Ocean Center Bldg., engr.

Calif., Santa Barbara — SWIMMING FACILITIES—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 55, May 18, swimming facilities at Hoff General Hospital, No. 283, from John A. Klarquist, 618 S. Western Ave., Los Angeles, **$59,666.**

†Colo., Denver—TAXIWAYS—U. S. Eng., 909 17 St., addnl. taxiways at Lowry Field, from Peter Kiewit Sons Co., Box 4149 So. Denver Station, Denver, **$73,000.** CD 4/26—ENR 5/10.

†Md., Patuxent River (br. Wash. D. C.)—AIR STATION ROADS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., May 11, addnl. roads, Naval Air Station, NOY 10989, from C. J. Langenfelder, 7500 Philadelphia Rd., Baltimore, **$96,381.**

†Md., Patuxent River (br. Wash. D. C.)—RUNWAYS, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., May 11, replacement joint material of runways, etc., Naval Air Station, NOY 12205, from C. J. Langenfelder, 7500 Philadelphia Rd., Baltimore, **$132,106.** CD 5/7.

†Md., Patuxent River (br. Wash., D. C.)—AIR STATION BLDG.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., May 14, Supply Dpt. storage bldg., Naval Air Station, NOY 11722, from Consolidated Engr. Co., St. Paul and Franklin Sts., Baltimore, **$107,400.** CD 5/7—ENR 5/10.

†Md., Priests Point—TAXIWAYS, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., May 14, taxiway and parking area, Webster Field, NOY 11987, from C. J. Langenfelder & Son, 8427 Pulaski Hy., Baltimore, **$281,682.** CD 5/7—ENR 5/10.

†Nev., Tonopah—SONIC BOMB SCORING TARGETS—U. S. Eng., 1209 8 St., Sacramento 8, Calif., sonic bomb scoring targets, consisting some electrical work, grading work and target bldgs., Tonopah Army Airfield, Spec. 1112, from Fredrickson Bros., 1259 65 St., Emeryville, Calif., **$95,381.** CD 5/10.

†O., Dayton—RAILROAD FACILITIES—U. S. Eng., 522 U. S. Post Office and Courthouse Bldg., Cincinnati, Zone 1, railroad facilities, surfacing outside storage space, from Foley Constr. Co., Boudinot and C. & O. R. R., Cincinnati, **$144,007;** club bldg. addn., at Officers Mess, Wright Field, from Frank Messer & Sons Co., 2515 Burnet St., Cincinnati, **$82,061.**

O., Sandusky—PARK IMPROVEMENTS—City, A. J. Lauber, mgr., City Hall, May 3, roadway grading, paving and excav. for water lines and constructing storm sewers, Div. A of Memorial Park Addn., from Road Building & Equip. Co., Norwalk, **$33,787.** R. R. Smith, City Hall, city engr.

†Tex., Big Spring—SONIC BOMBING TARGET RANGE—U. S. Eng., Albuquerque, N. M., sonic bombing target range, from Chas. F. Hastings, Carlsbad, N. M., approx. **$33,340.**

†Tex., Longview—SWIMMING POOL—U. S. Eng., 231 W. Main St., Denison, May 17, swimming pool at Ashburn General Hospital, from Robt. E. McKee, P.O. Box 2848, Dallas, approx. **$50,000.**

CONTRACTS AWARDED

†Ala., Huntsville—AUTOMATIC SPRINKLER SYSTEMS—U. S. Eng., Grant St. west of Westwood St., Mobile, Zone 7, installing automatic sprinkler sys., Huntsville Arsenal, Contr. W-01-076-eng.-1015, to Grinnell Co., Inc., 240 N. Highland Ave. N.E., Atlanta, Ga., **$205,495.**

†Ala., Tuscaloosa—SWIMMING POOL—U. S. Eng., Grant St. west of Westwood St., Mobile, Zone 7, swimming pool, incl. utilities, Northington General Hospital, Contr. W-01-076-eng.-1017, to Day & Richardson, 429 S. 24 St., Birmingham, **$45,083.**

†Ark., Hope—MISCELLANEOUS CONSTRUCTION—U. S. Eng., 300 Bway., Little Rock, miscellaneous constr., at Southwestern Proving Grounds, to D. F. Jones Constr. Co., Insurance Bldg., Little Rock, **$28,264;** and to Mid-State Constr. Co., Alexandria, La., **$81,200.**

★**†Calif., Hunters Point**—PIER IMPROVEMENTS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., electrical, mechanical and miscellaneous services for pier, U. S. Naval Drydocks, NOY 10728, to Gerwick, Morrison, Knudsen & Twaits, 112 Market St., San Francisco, **$1,146,254.** CD 5/10 under LB.

†Calif., Lake Tulare—SEADROME—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., emergency seadrome, NOY 11825, to Trewhitt, Shields & Fisher, 1501 Pacific Southwest Bldg., Fresno, **$77,053.**

†Calif., San Diego—AIR STATION CHAPEL—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., chapel, Naval Auxiliary Air Station, NOY 10343, to L. P. Sherer, T. C. Prichard, Contractors, 2084½ Orange St., Redlands, **$59,682.**

★**†Calif., Stockton**—YARD, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., reclassification yard, roads, open storage, Bachelor Officers quarters and services, Naval Supply Depot, Rough & Ready Island, NOY 11903, to MacDonald & Kahn, Pollock-Telchert, Inc., 1846 37 St., P.O. Box 1113, Sacramento, **$779,198.** CD 5/14.

†Fla., Morrison Field (br. West Palm Beach) — AIRFIELD BLDGS. etc. — U. S. Eng., Post Office Bldg., Savannah, Ga., addnl. bldgs., Contr. W-09-133-eng-640, to Paul Smith Constr. Co., 310 N. Rome Ave., Tampa, **$126,423.** CD. 4/12—ENR 4/19.

†Ga., Fort Benning—TRAINING POOL, etc.—U. S. Eng., Grant St. west of Westwood Sts., Mobile 7, Ala., training pool with bathhouses, incl. outside utilities, Contr. W-01-076-eng-1024, to Williams Constr. Co., Columbus, **$87,804.**

Idaho—RAILROAD GRADING, etc.—Union Pacific R. R., B. H. Prater, ch. engr., 1416 Dodge St., Omaha 2, Neb., grading, track extens., etc. on centralized traffic control sys. between Pocatello and Glenns Ferry, to Morrison-Knudsen Co., Inc., 319 Bway., Boise. Est. **$115,000.**

†Ill., Hines—SWIMMING POOL, etc.—U. S. Eng., 520 Merchandise Mart, Chicago, Zone 54, outdoor, brick, concrete swimming pool, bathhouse, to Welso Constr. Co., 2233 W. Grand Ave., Chicago, **$49,750.**

Ill., Rock Island—SPRINKLER SYSTEM—U. S. Eng., Clock Tower Bldg., Rock Island, sprinkler sys. valve houses, Contr. W-11-117-eng-639, Rock Island Ordnance Center, to T. S. Willis, Janesville, Wis., **$27,369.**

†Kan., Fort Riley — HARD STANDING AREA, etc.—U. S. Eng., 10 E. 17 St., Kansas City 8, Mo., hard standing area, sanitary sewer, bituminous surfacing, to Storms-Frew Co., City National Bank Bldg., Kansas City, Mo., **$32,565.**

†Kan., Fort Riley—SWIMMING POOL, etc.—U. S. Eng., 10 E. 17 St., Kansas City 8, Mo., swimming pool, bathhouse, filter plant, walk, pipe, culverts, to Martin K. Eby Constr. Co., 311 E. Murdock St., Wichita, **$18,888.**

★**Louisiana**—GAS PIPELINE—Memphis Natural Gas Co., Sterick Bldg., Memphis, Tenn., 50 mi. 20 in. gas pipeline between Lisbon and Monroe, to N. A. Saigh Constr. Co., American Hospital and Life Bldg., San Antonio, Tex., approx. **$825,000.** CD 2/9—ENR 2/15.

†Mass., Cohasset—EARTH BARRICADES—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., earth barricades at Transfer Depot, Naval Magazine, NOY 12067, to Coleman Bros., Corp., 245 State St., Boston, **$29,485.**

★**Mississippi**—GAS LINES—Memphis Natural Gas Co., Sterick Bldg., Memphis, Tenn., 61 mi. 18 in. loop gas lines in 3 sections, Robinson area, to N. A. Saigh Constr. Co., American Hospital & Life Bldg., San Antonio, Tex., approx. **$760,000.**

†Miss., Biloxi—PARKING APRON—U. S. Eng., Grant St. west of Westwood St., Mobile 7, Ala., addnl. parking apron, incl. outside utilities at Keesler Field, to Barber Bros. Co., Baton Rouge, La., **$67,402.**

†Miss., Jackson — SWIMMING POOL — U. S. Eng., Grant St. west of Westwood St., Mobile 7, Ala., swimming pool, incl. outside utilities, Foster General Hospital, Contr. W-01-076-eng-1018, to C. H. Treadwell Builder, 1523 Centenary Blvd., Shreveport, La., **$50,798.**

†N. M., Carlsbad—BOMB SCORING INSTALLATIONS—U. S. Eng., P. O. Box 1654, Albuquerque, bomb scoring installations, to Gable Electric Service, 6713 Snider Plaza, Dallas, Tex., **$58,000.**

†N. C., Camp Butner (br. Durham)—MECHANICAL VENTILATION—U. S. Eng., Post Office Bldg., Savannah, Ga., mechanical ventilation of bldgs., Contr. W-09-133-eng-623, to Couch Constr. & Supply Co., Durham, **$79,571.**

★**†N. C., Cherry Point (New River br. New Bern)**—AIR STATION HEATING PLANT—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25 D. C., heating plant addns., alterations Marine Corps Air Station, NOY 11404, to Raisler Corp., 25 Amsterdam Ave., New York 23, N. Y., $92,700. CD 5/10 under Public, LB.

†O., Cleveland—AIRPORT BLDG.—National Advisory Com. for Aeronautics, Cleveland Airport, 1 story, 60x142 ft., brick fuel injection bldg., at Cleveland Airport, to Hadlock-Krill Co., 2169 E. 33 St., Ex. **$160,000.**

Oklahoma — PIPELINE — Stanolind Pipe Line Co., Stanolind Bldg., Tulsa, taking up 29 mi. and 8 and 6 in. pipeline between Drumright and Terlton Junction, incl. reconditioning of pipe, to Williams Bros. Corp., National Bank Tulsa Bldg., Tulsa, approx. **$90,000;** taking up and reconditioning 6 in. pipeline, Nelagoney Junction, Lake Station sections, near Drumright, to Sooner Constr. Co., 15 E. Cameron St., Tulsa, approx. **$80,000.**

†Okla., Stillwater—AIRPORT—Civil Aeronautics Admin., P. O. Box 1689, Fort Worth 1, Tex., mulching, seeding, grading, etc., Prop. No. 4-45-5014, to Myron Grosclose, Box 774, Oklahoma City, **$45,920.** Bids 5/1. CD 5/1.

Pa., Phila.—RECREATION FIELD—City Fairmount Park Comrs., City Hall, recreation fields, facilities. Owner builds. **$25,000.**

R. I., Johnston — ATHLETIC FIELD—Town, Judge L. W. Dunn, chn. Bldg. Com., 917 Turks Head Bldg., Providence, athletic field, incl. drainage, grading, landscaping also baseball and football fields, Pocasset Rd. and Hartford Ave., to Frank Palazzi & Sons, Inc., 2321 Hartford Ave. Est. **$25,000.** O. DiSaia, 703 Gardner Bldg., Providence, archt.

†R. I., Quonset Point—CARRIER PIER, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., impry. carrier pier and waterfront const., Naval Air Station, NOY 11813, to Bay State Dredging & Contg. Co., 62 Candor St., E. Boston, Mass. **$42,840.** CD 4/10.

†Tenn., Nashville—SWIMMING POOL, etc.—U. S. Eng., Grant St. west of Westwood St., Mobile 7, Ala., swimming pool, incl. outside utilities, Thayer General Hospital, Contr. 01-076-eng-1016, to Allen Murphy, Contractor, 82 Crescent Rd., Nashville, **$55,638.**

†Tex., Harlingen — AIRFIELD BLDGS. etc.—U. S. Eng., 606 Santa Fe Bldg., Galveston, bldgs., paving and P. M. ranges at Harlingen Army Airfield and Laguna Madre Sub-Base, Ser. W-21-243-eng-45-M1-20, to Noser Constr. Co., McAllen, **$98,461.**

†Tex., Texarkana—AMMUNITION STORAGE PADS—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., ammunition storage pads, Contr. W-34-066-eng-338, Red River Ordnance Depot, to Spencer Constr. Co., Carrollton, **$94,760.**

†Utah, Ogden—ADDITIONAL FACILITIES—U. S. Eng., 580 S. State St., Salt Lake City, addnl. facilities for repair sub-depot and construction of roadway at Utah ASF Depot, to R. J. Daum Constr. Co., 613 Beason Bldg., Salt Lake City, **$45,221.** Bids 5/8.

†Utah, Ogden—HEATING FACILITIES—U. S. Eng., 1209 8 St., Sacramento 8, Calif., addnl. heating facilities, Contr. W-04-167-eng-924, Utah ASF Depot, near here, to P. L. Larsen, Contractor, Provo, **$26,605.**

★**†Va., Norfolk**—LANDING STRIP, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D.C., constructing east-west landing strip and runways, Naval Auxiliary Air Station, Franklin Field, NOY 10185, to W. H. Scott, Inc., and Mecklenburg Constr. Co., Durham, N. C., **$515,305.**

Wash., Marshall—RAILROAD SIDING—Northern Pacific Ry. Co., B. Blum, ch. engr., 176 E. 5 St., St. Paul 1, Minn., 4,900 ft. siding exten., day labor. **$30,730.** CD 4/20—ENR 4/26.

Wash., Union Gap—TRACK REPLACEMENT—Northern Pacific Ry. Co., B. Blum, ch. engr., 176 E. 5 St., St. Paul 1, Minn., replacing 4,788 ft. track, day labor. **$33,055.** CD 3/28—ENR 4/5.

Proposal Advertisements see p. 23